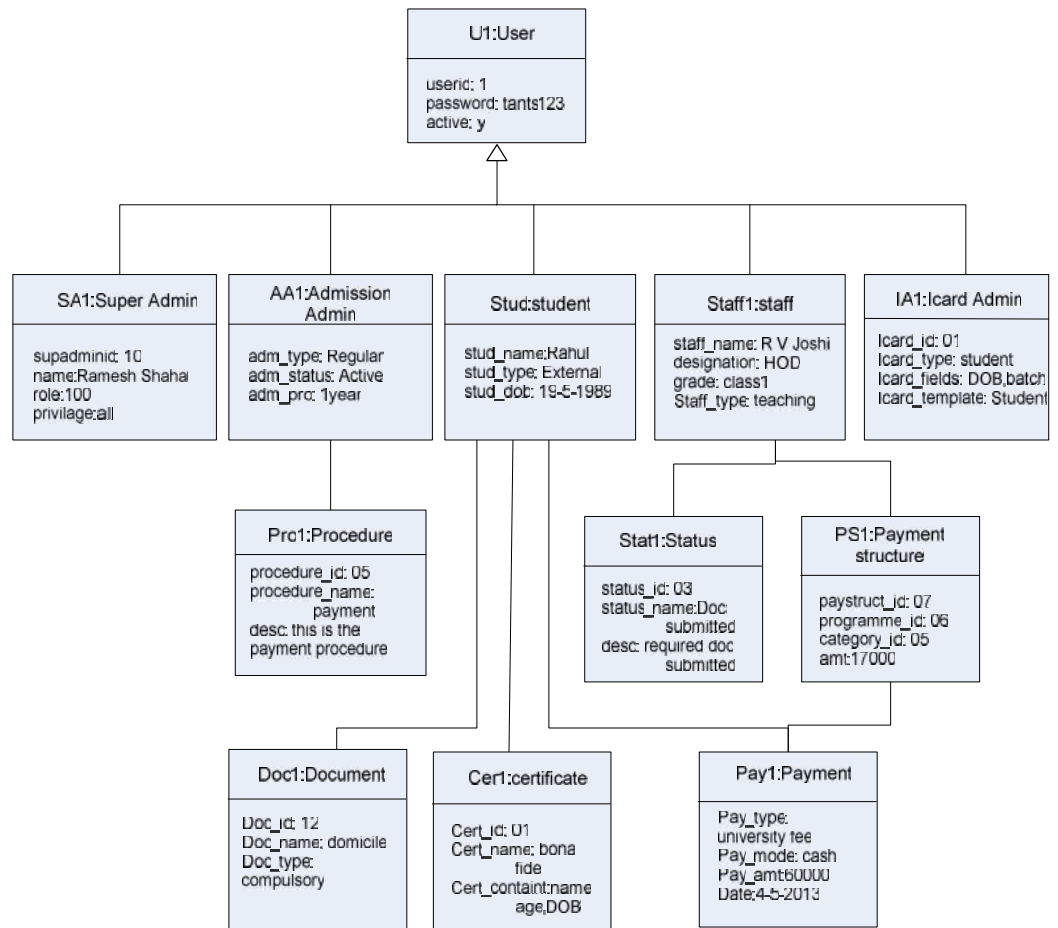
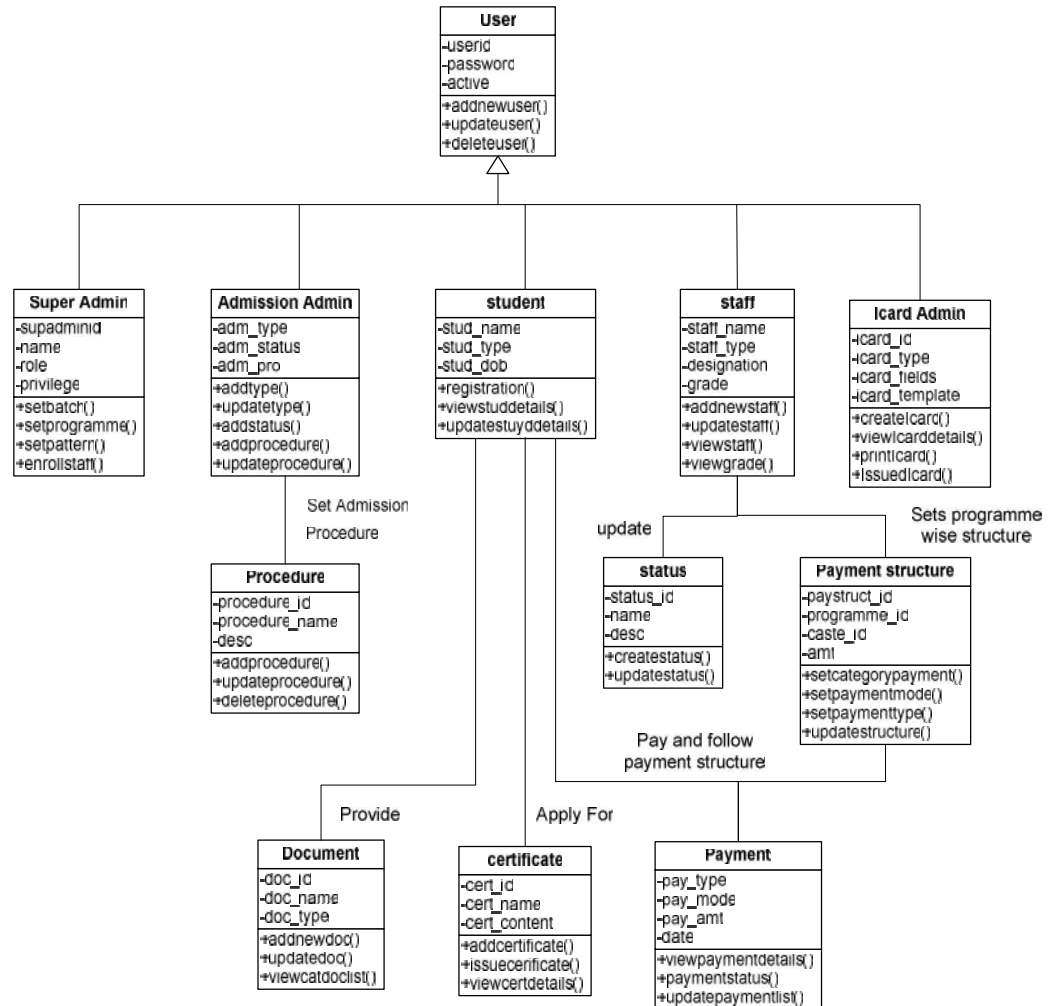


## 3.1 Object Diagram



# ADMISSION SYSTEM WITH I-CARD GENERATION

## 3.2 Class Diagram

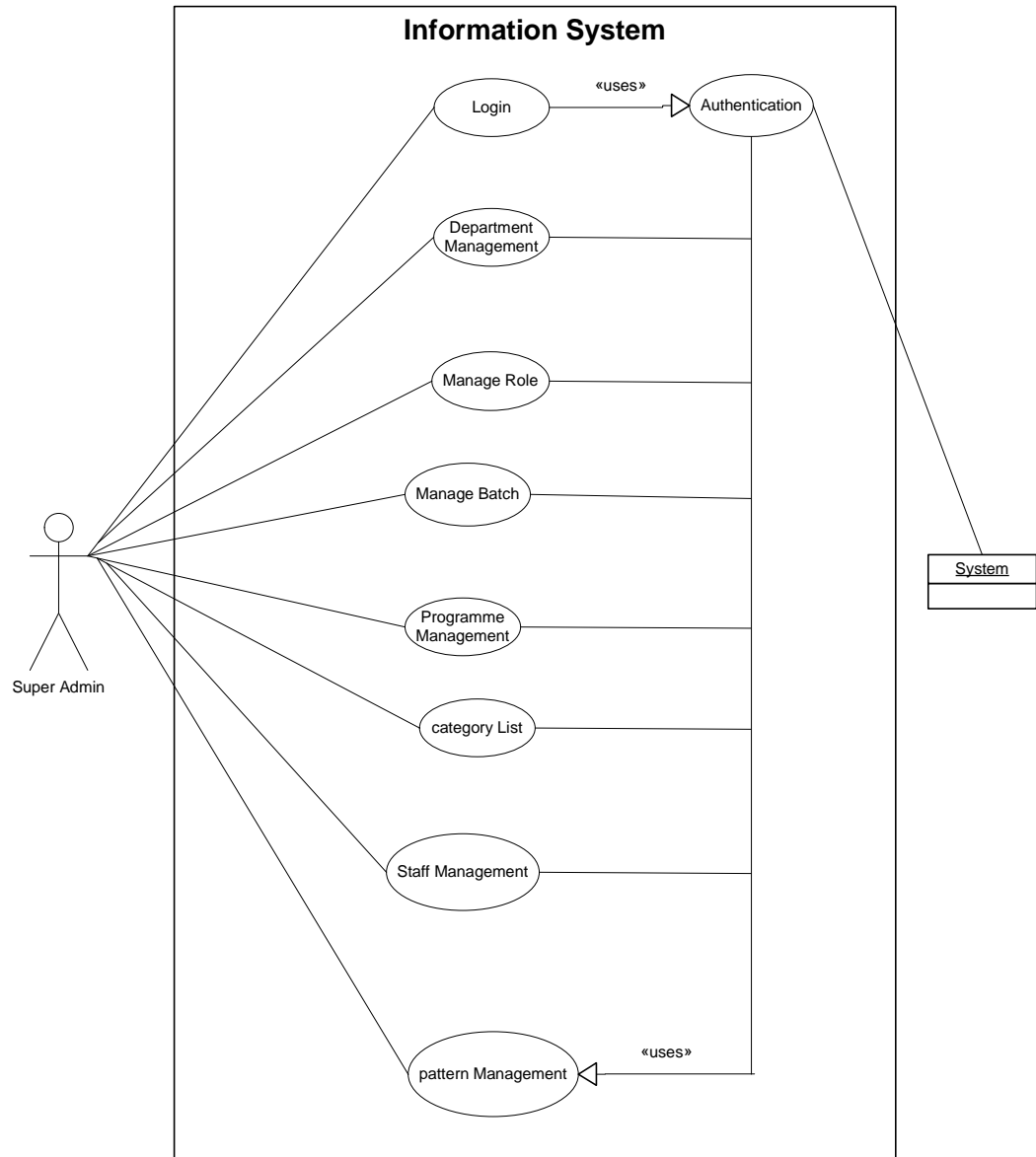


3.3 Use Case Diagrams (Business use case)



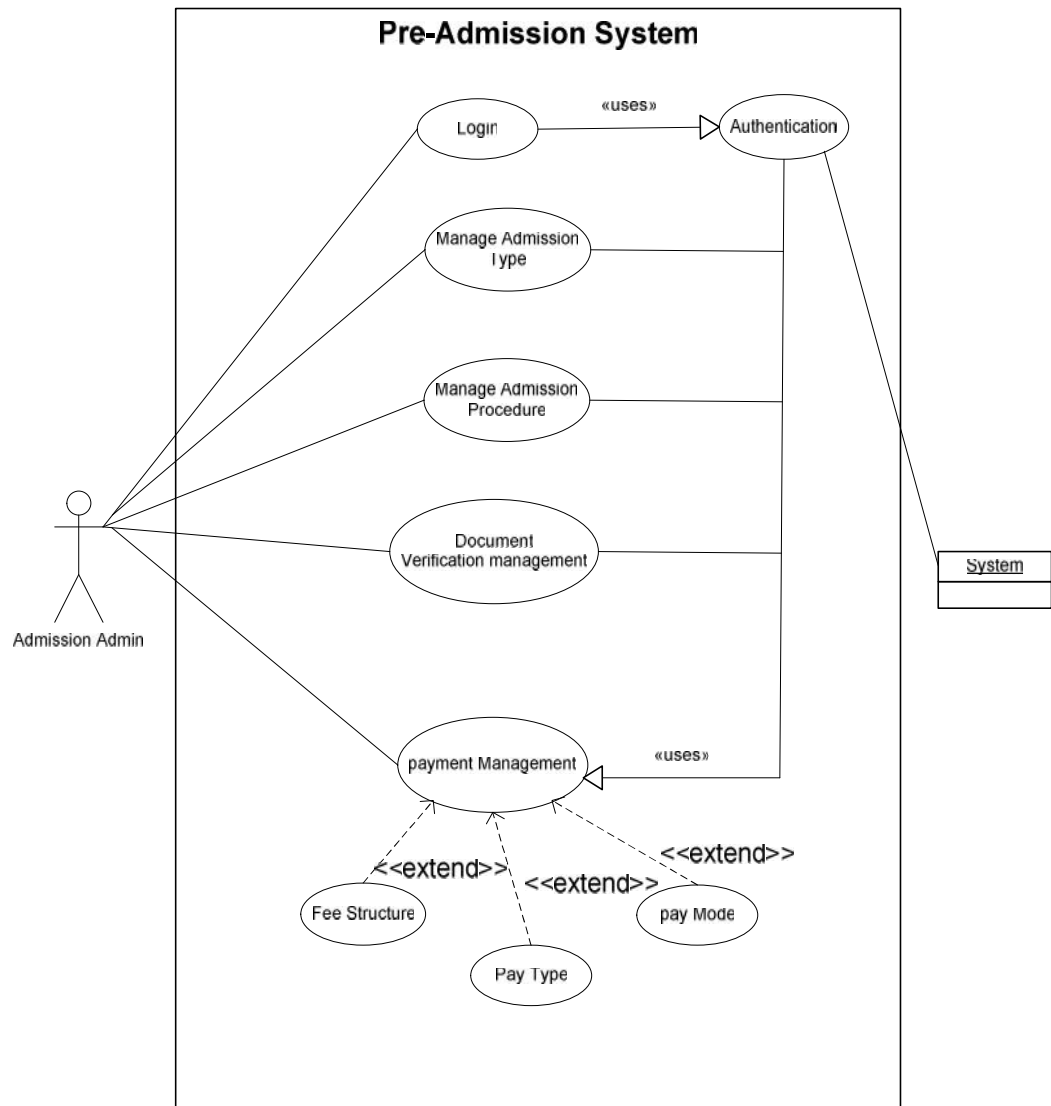
# ADMISSION SYSTEM WITH I-CARD GENERATION

## Use case for super admin



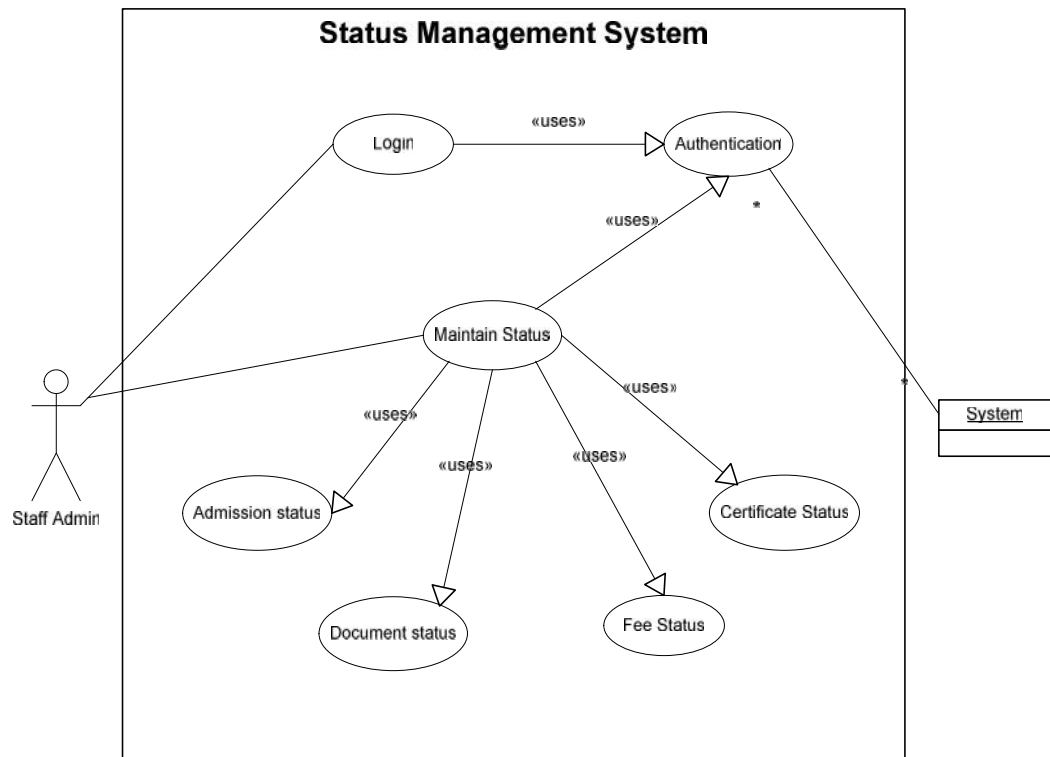
# ADMISSION SYSTEM WITH I-CARD GENERATION

## Use case for admission admin



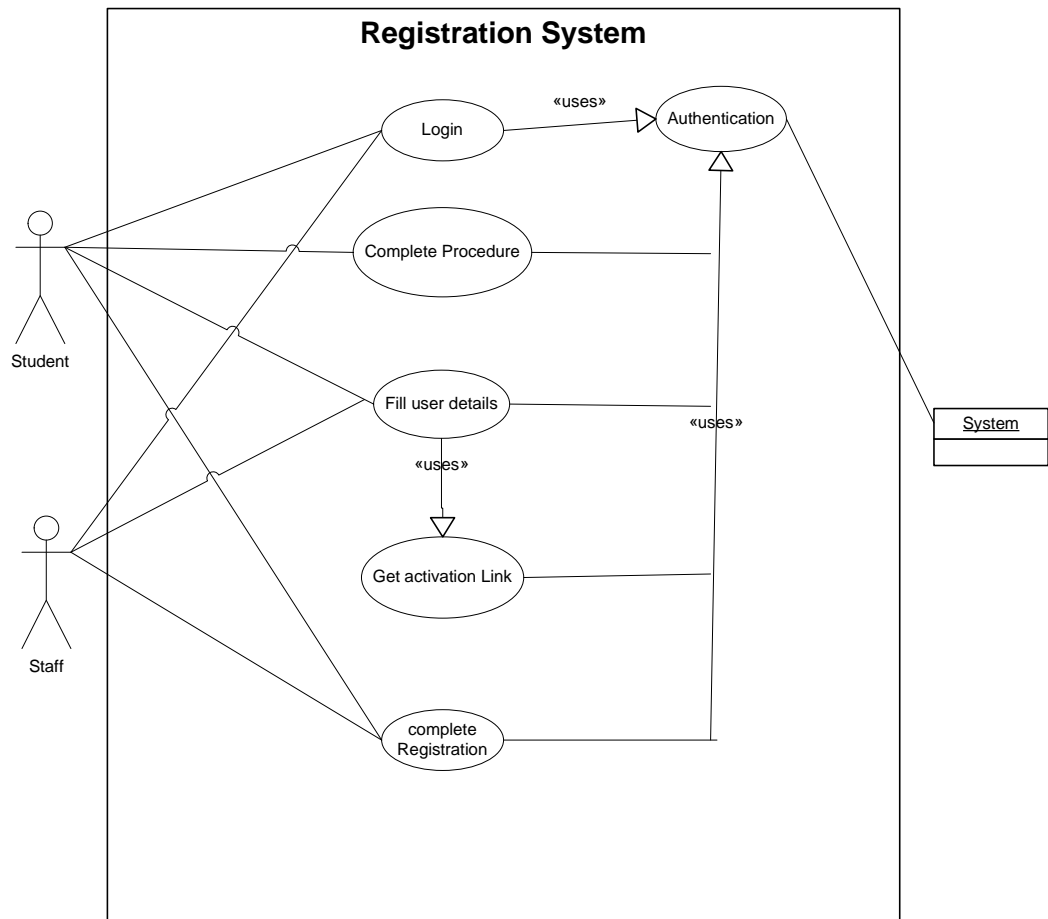
# ADMISSION SYSTEM WITH I-CARD GENERATION

## Use case for staff admin

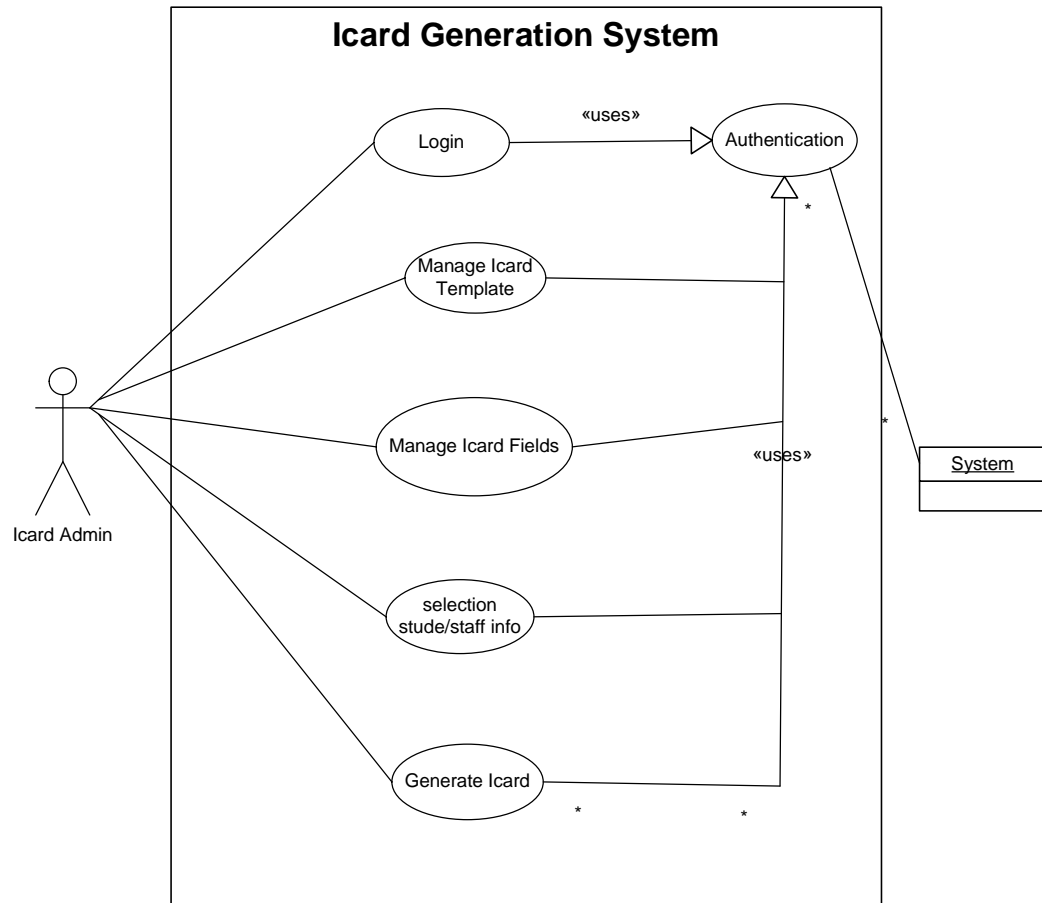


# ADMISSION SYSTEM WITH I-CARD GENERATION

## Use case for general user

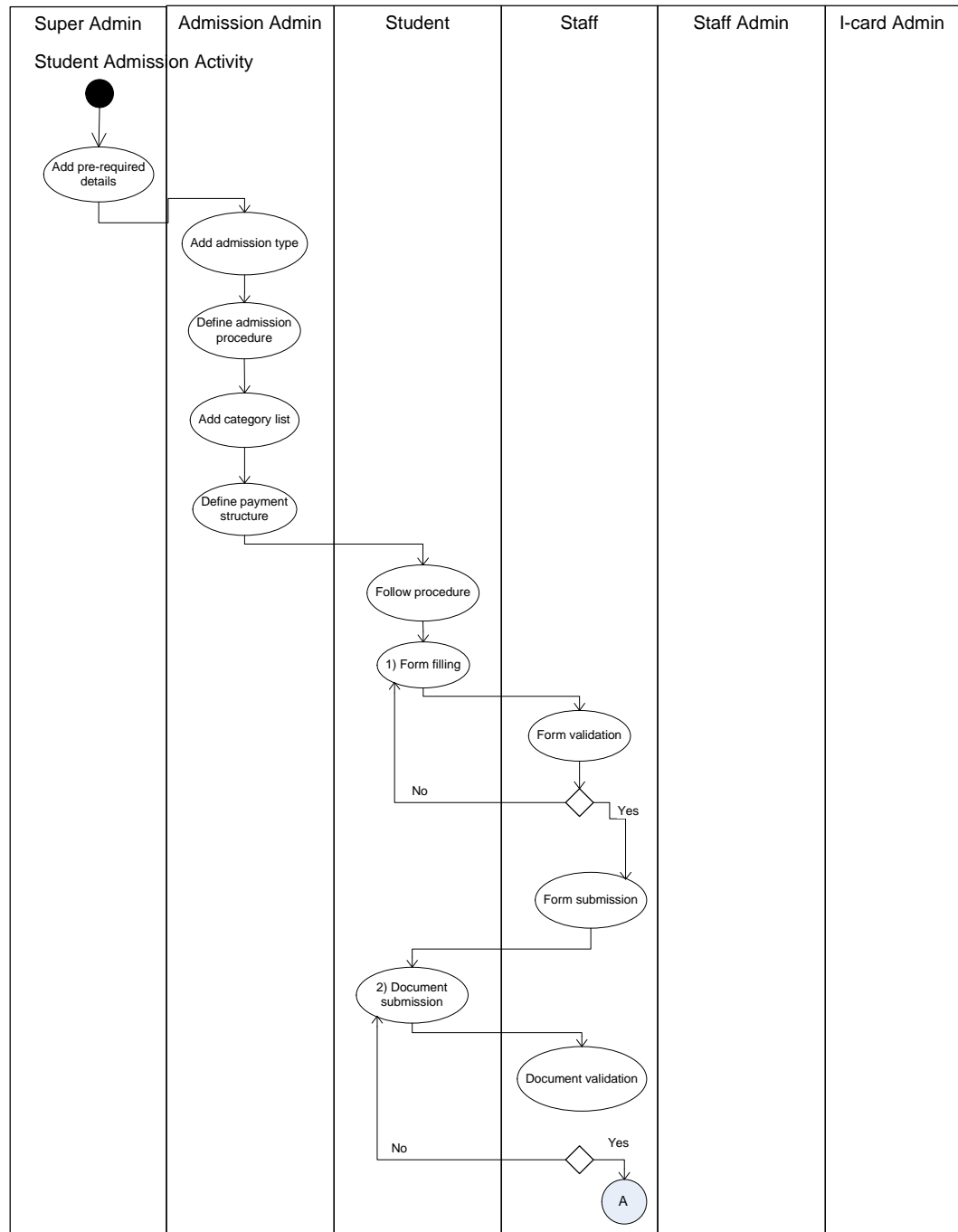


Use case for I-card admin

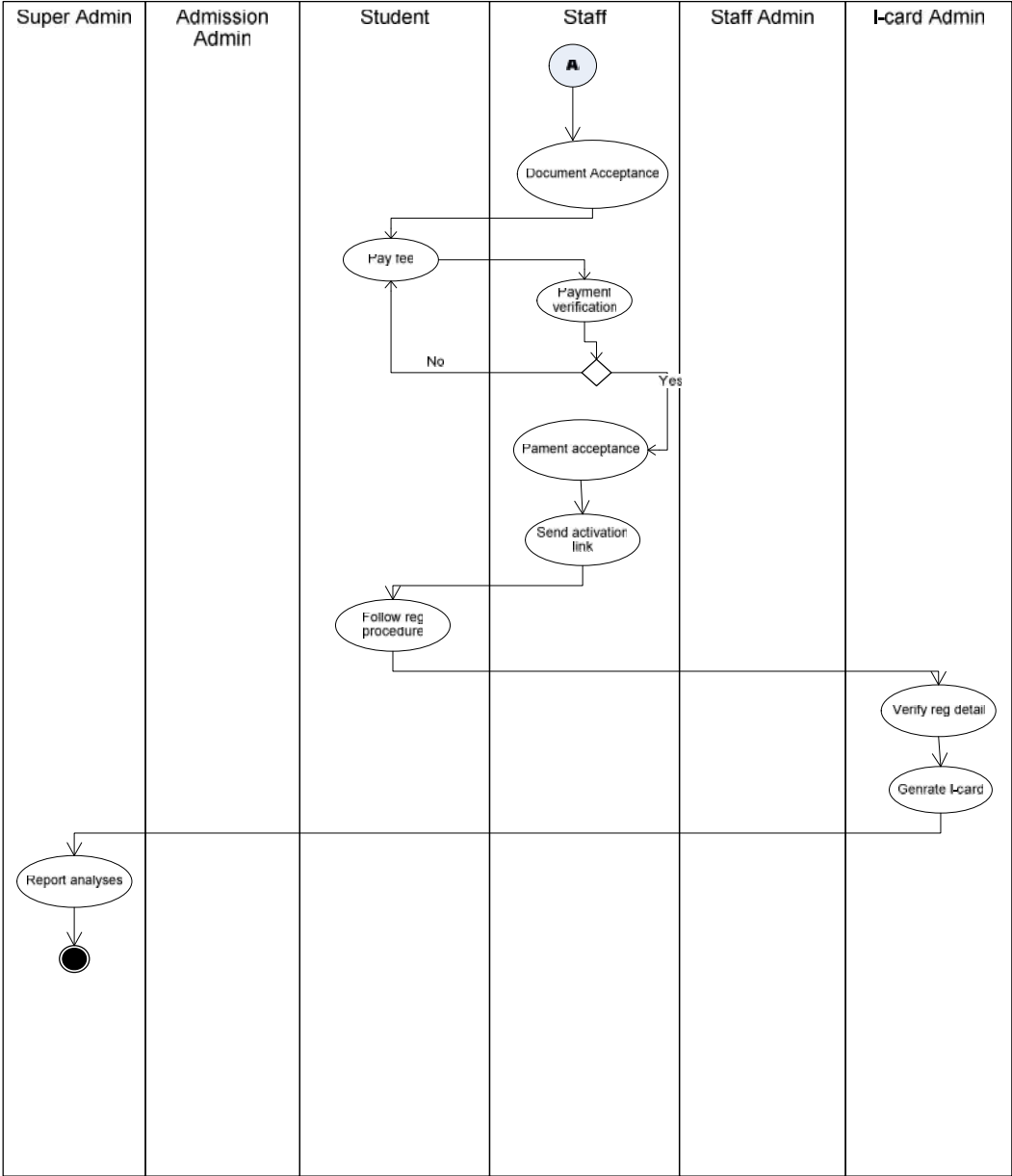




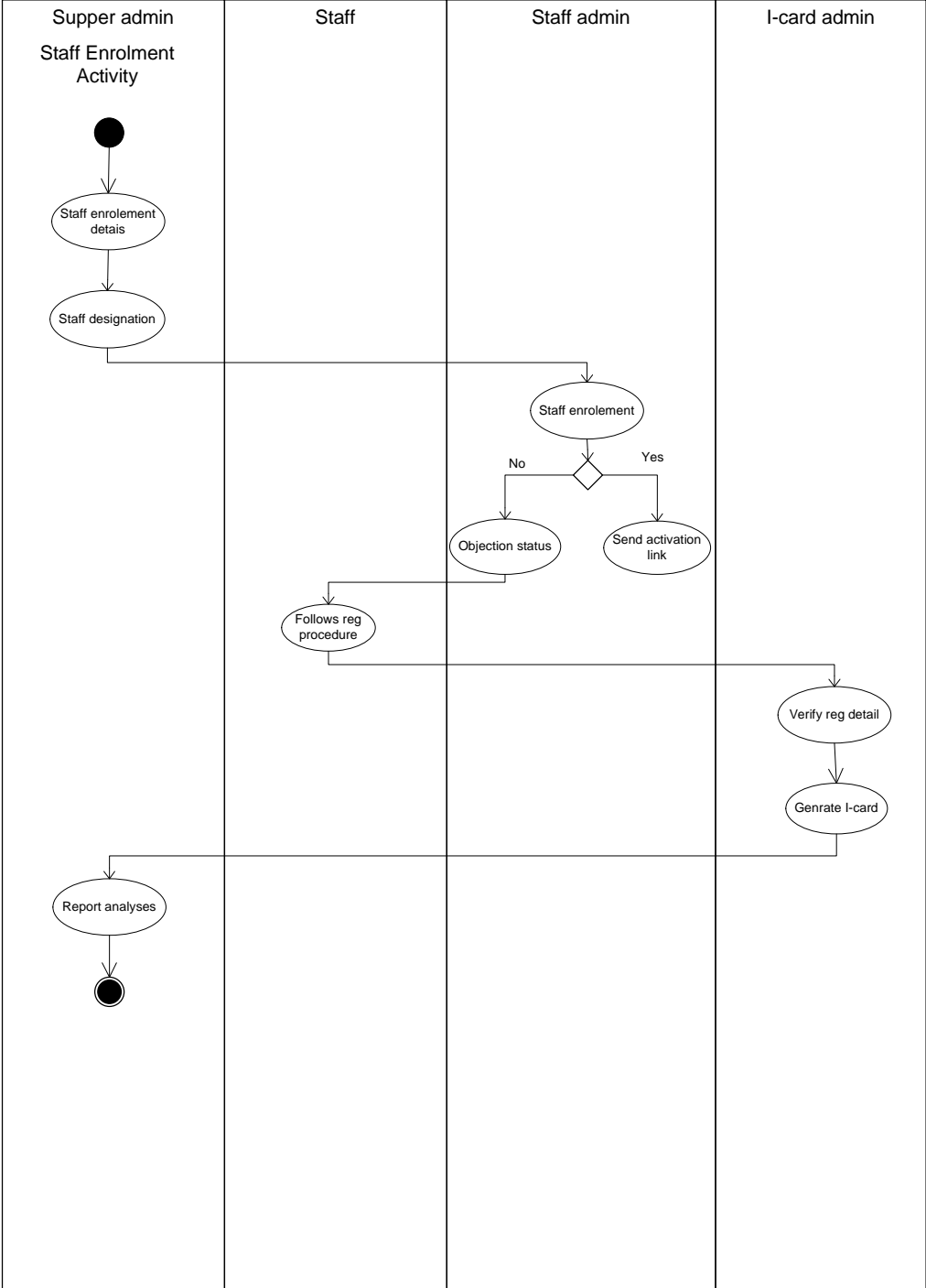
## 3.4 Activity Diagram



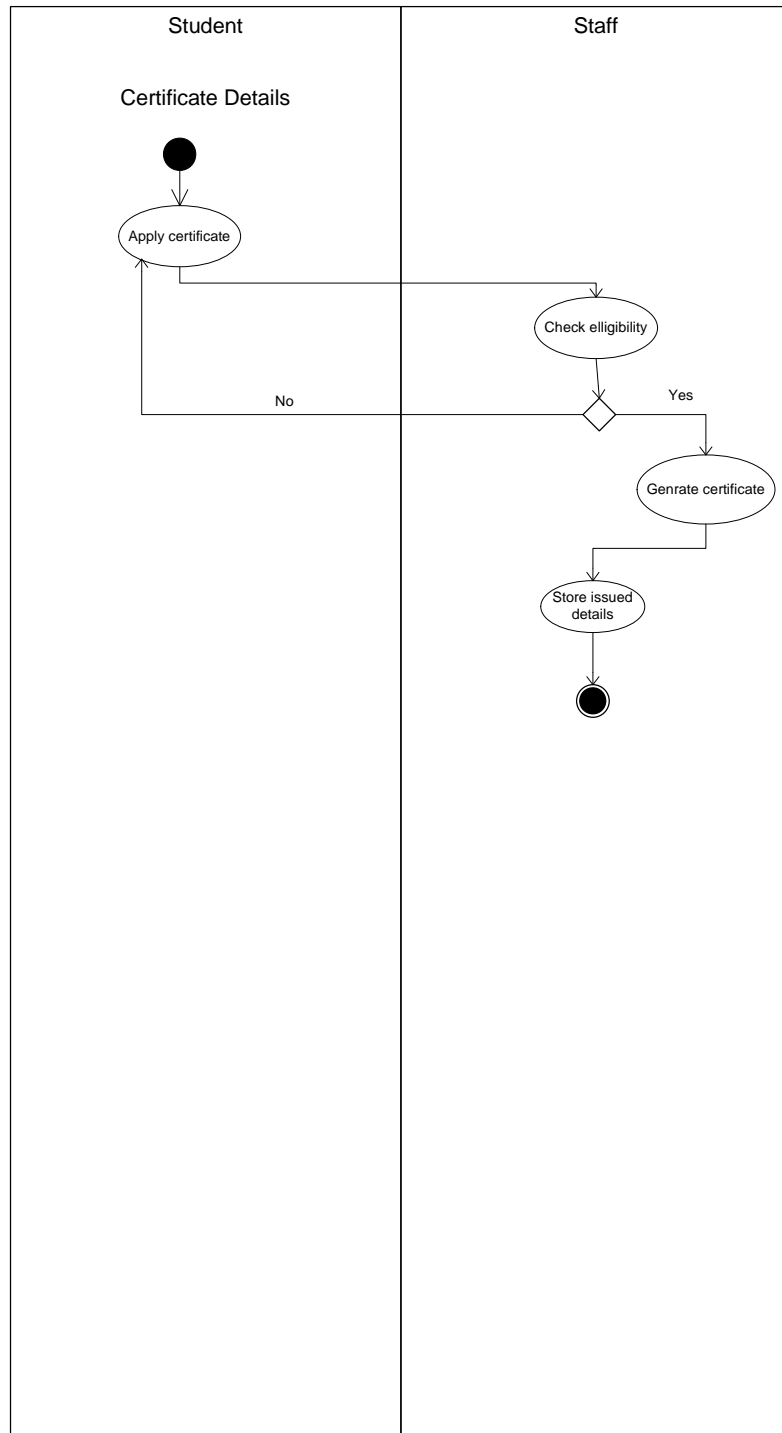
# ADMISSION SYSTEM WITH I-CARD GENERATION



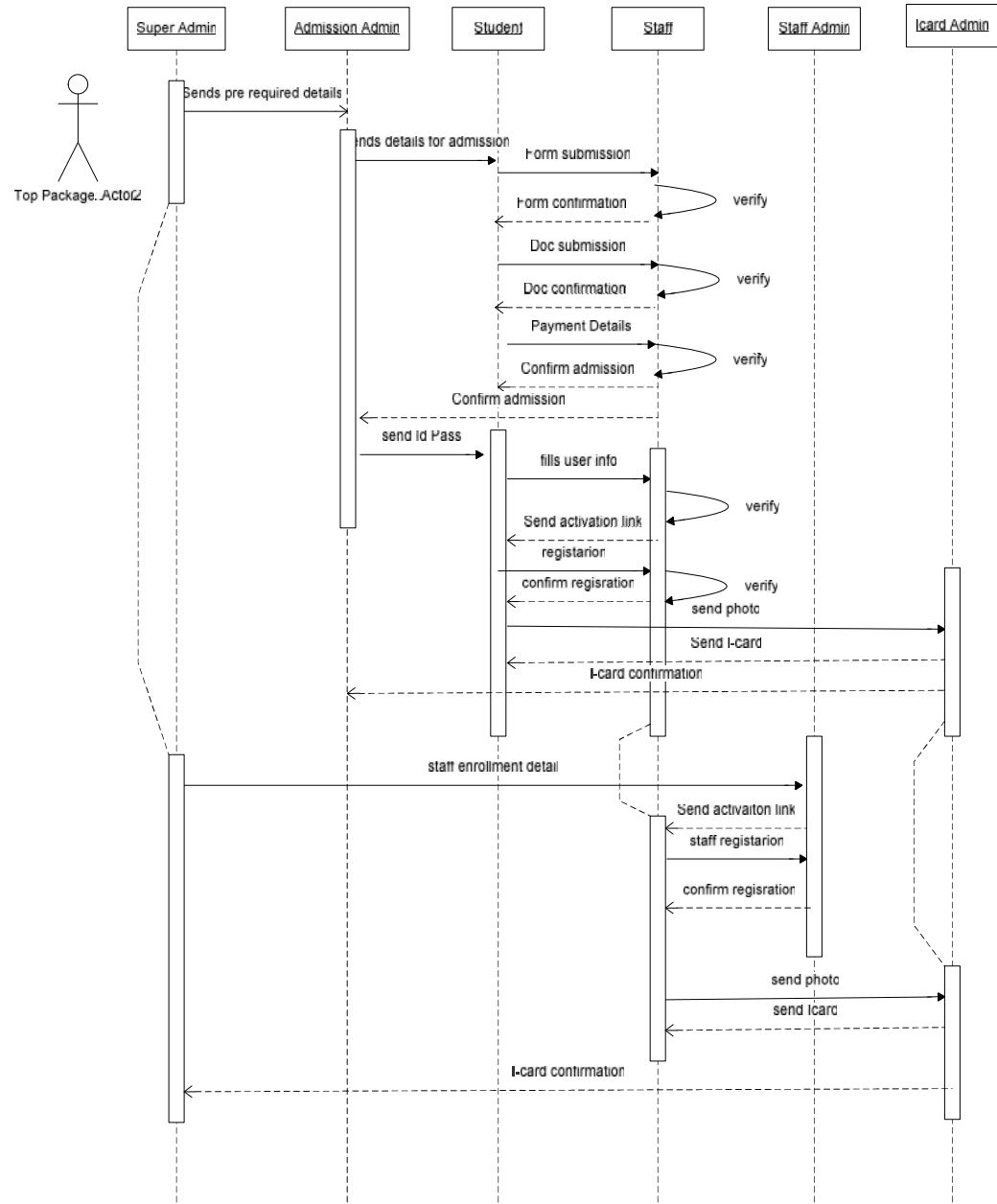
2) Staff Enrolment



### 3) Certificate Management

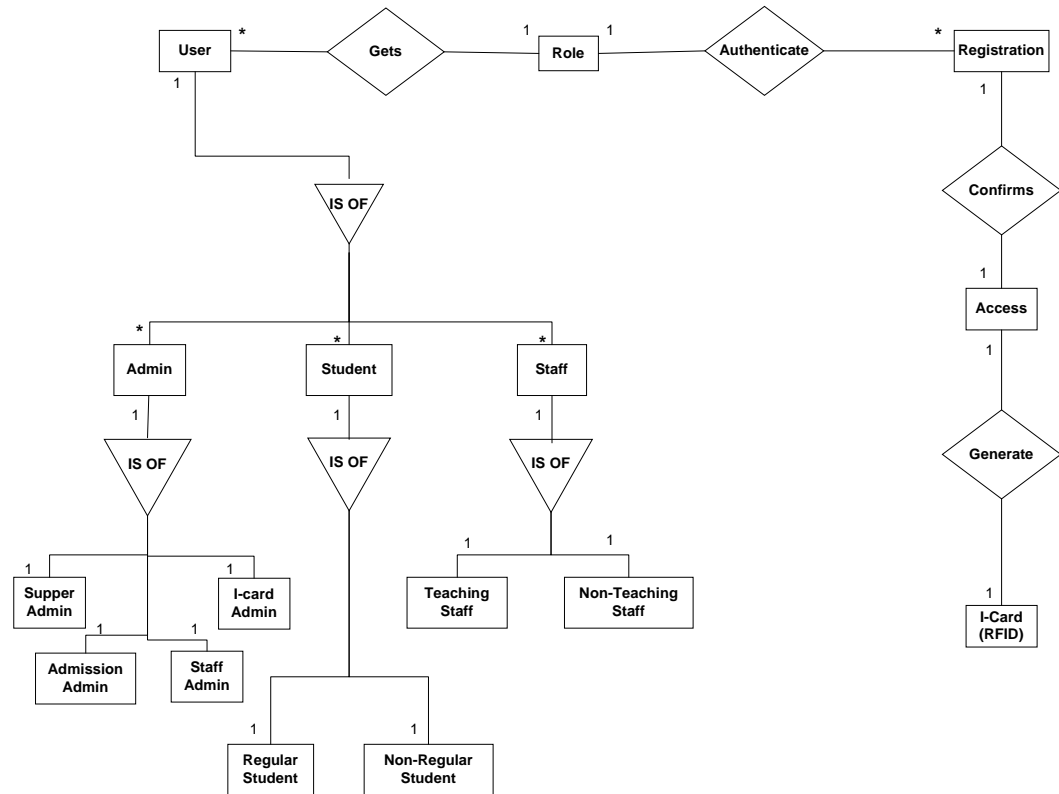


3.5 Sequence Diagrams



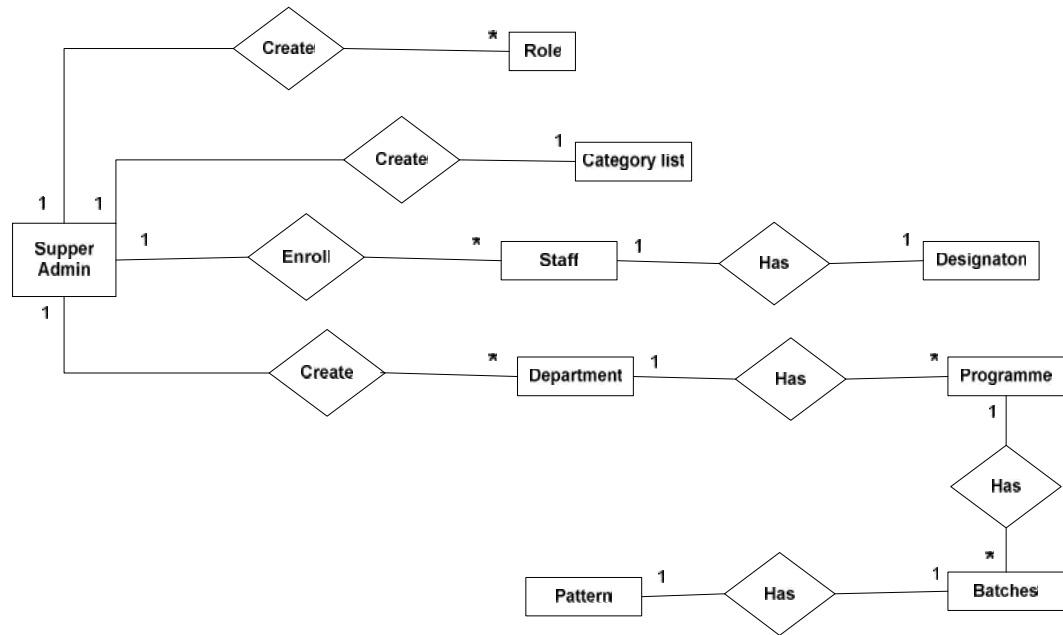
### 3.6 Entity Relationship Diagram

(Overview Of System)

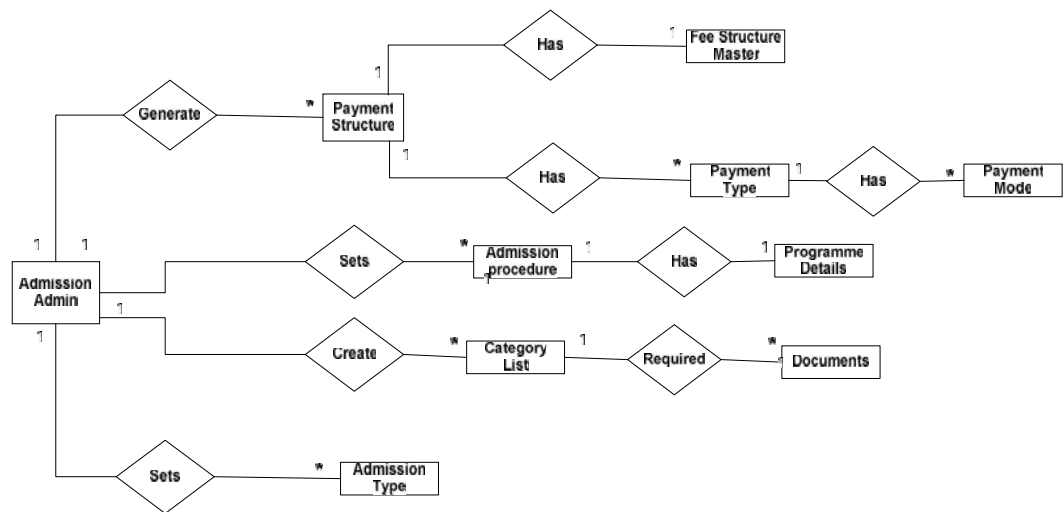


# ADMISSION SYSTEM WITH I-CARD GENARATION

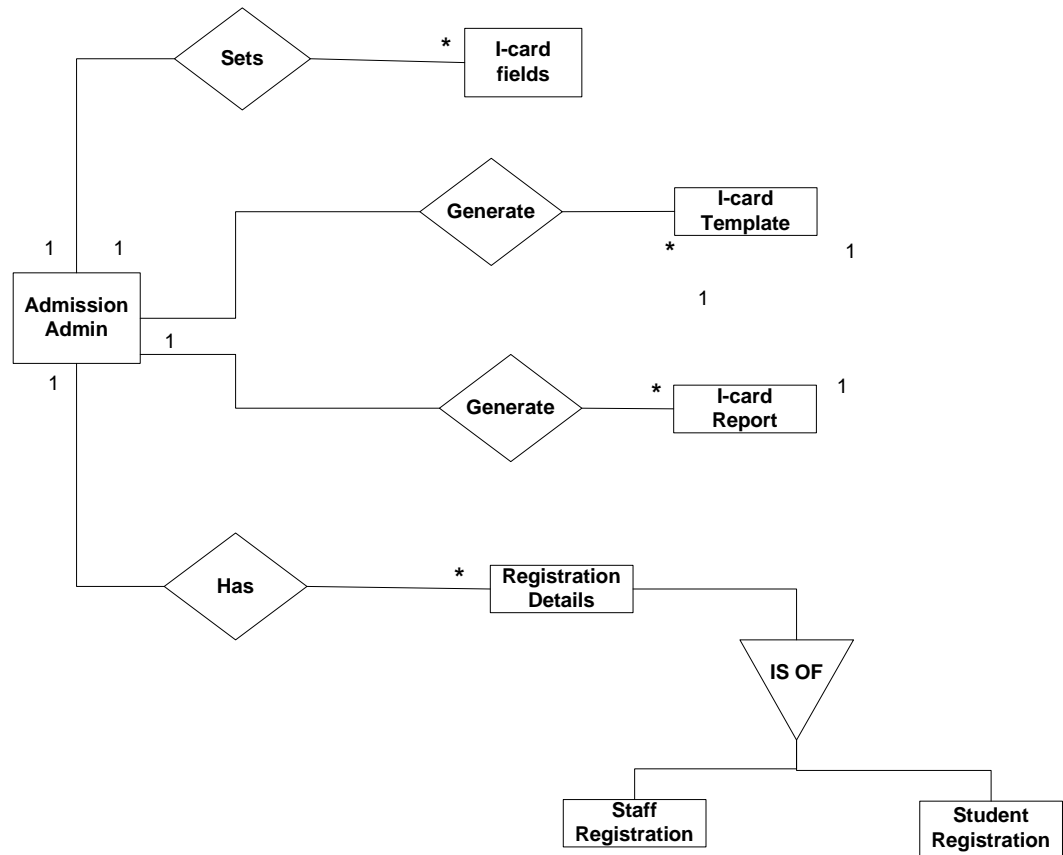
## Super admin



## Admission admin



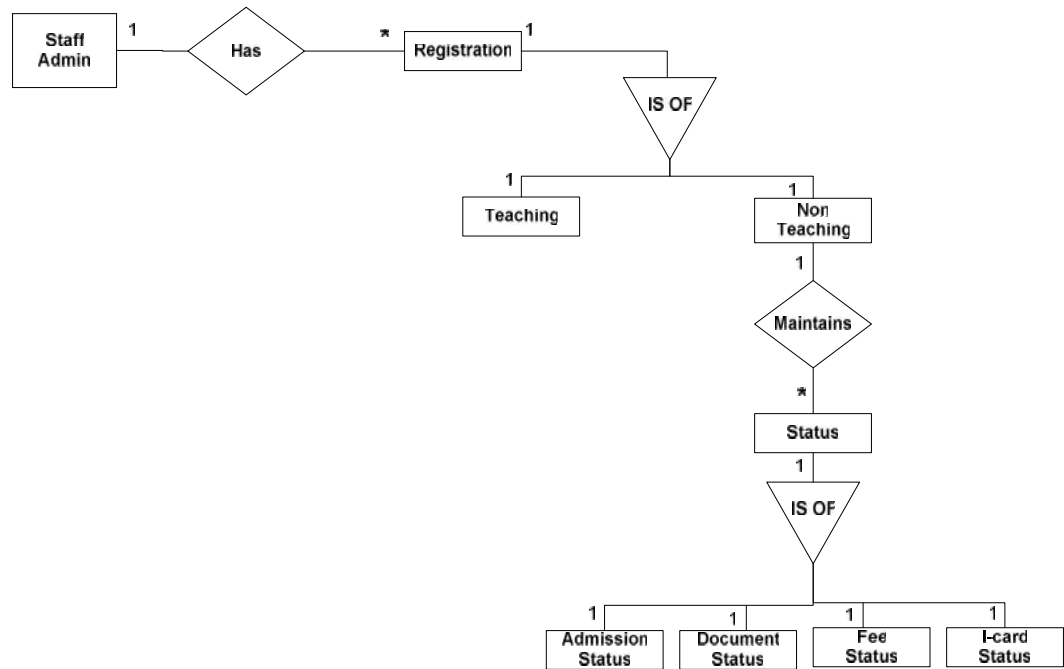
I-card admin



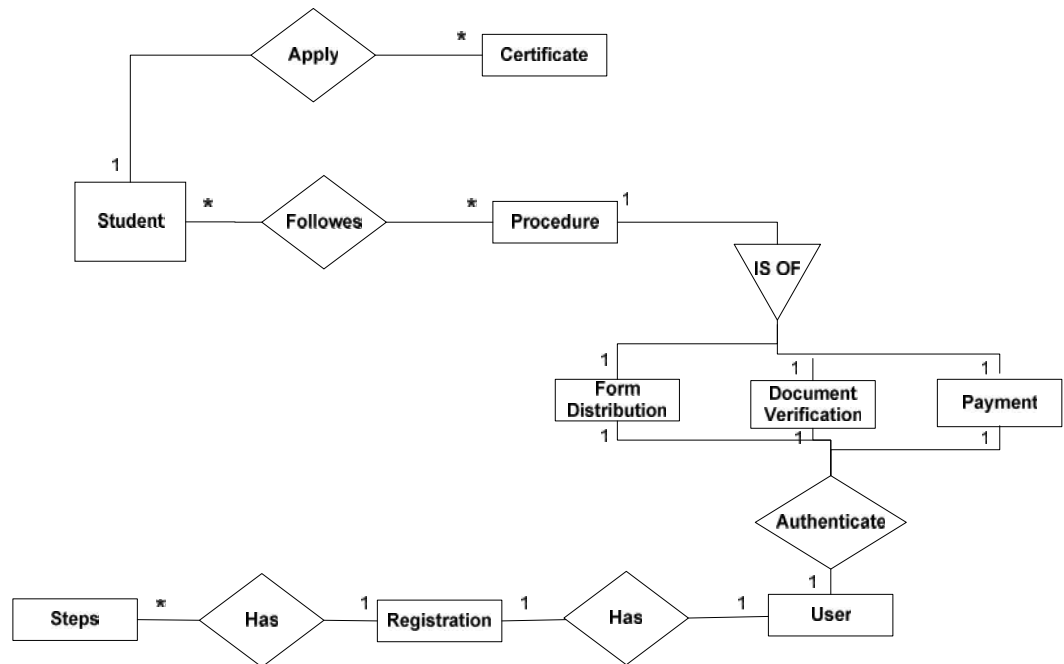


# ADMISSION SYSTEM WITH I-CARD GENERATION

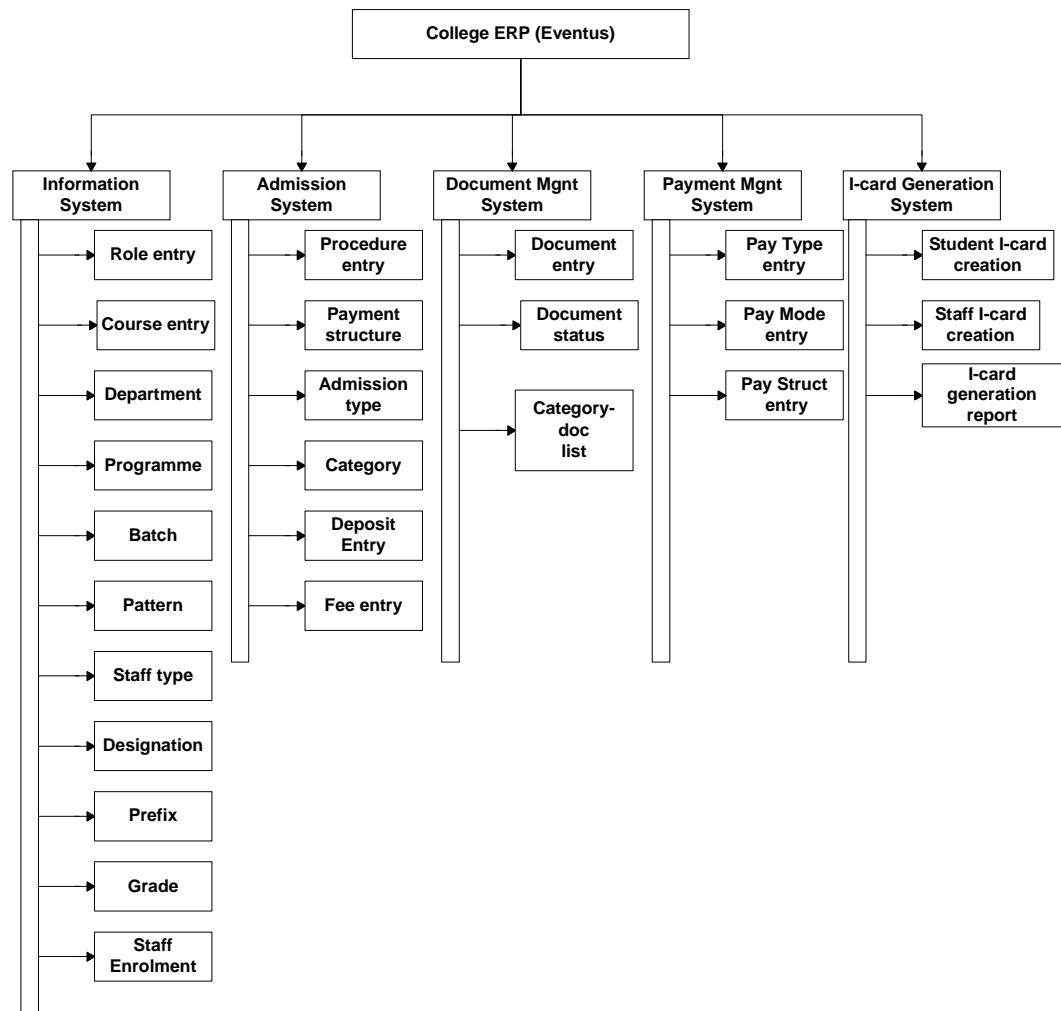
## Staff admin



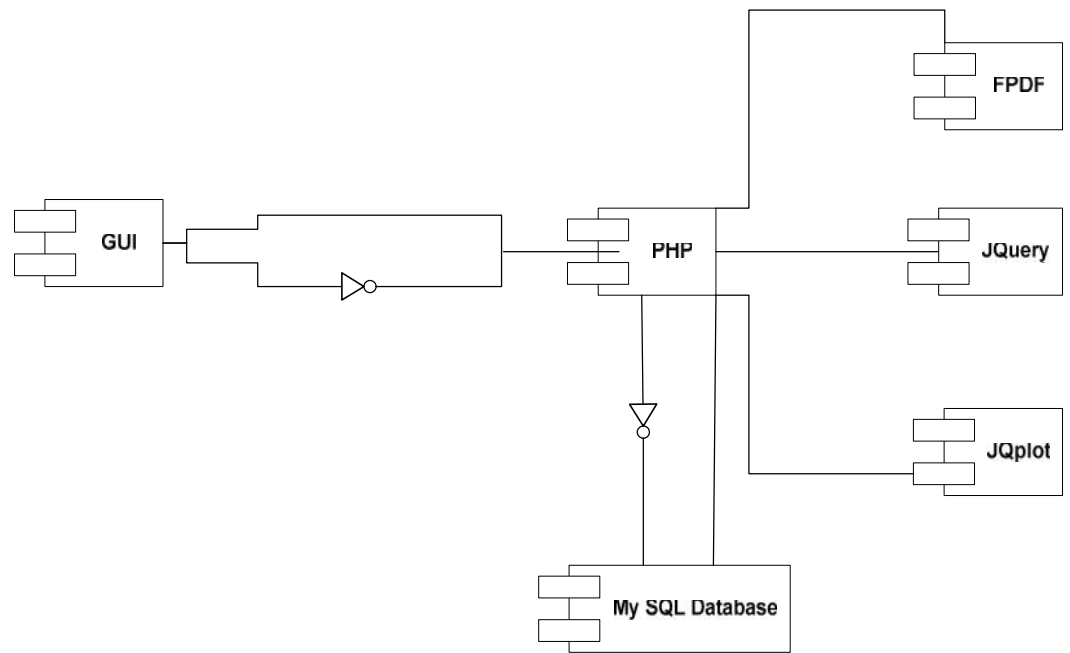
## Student



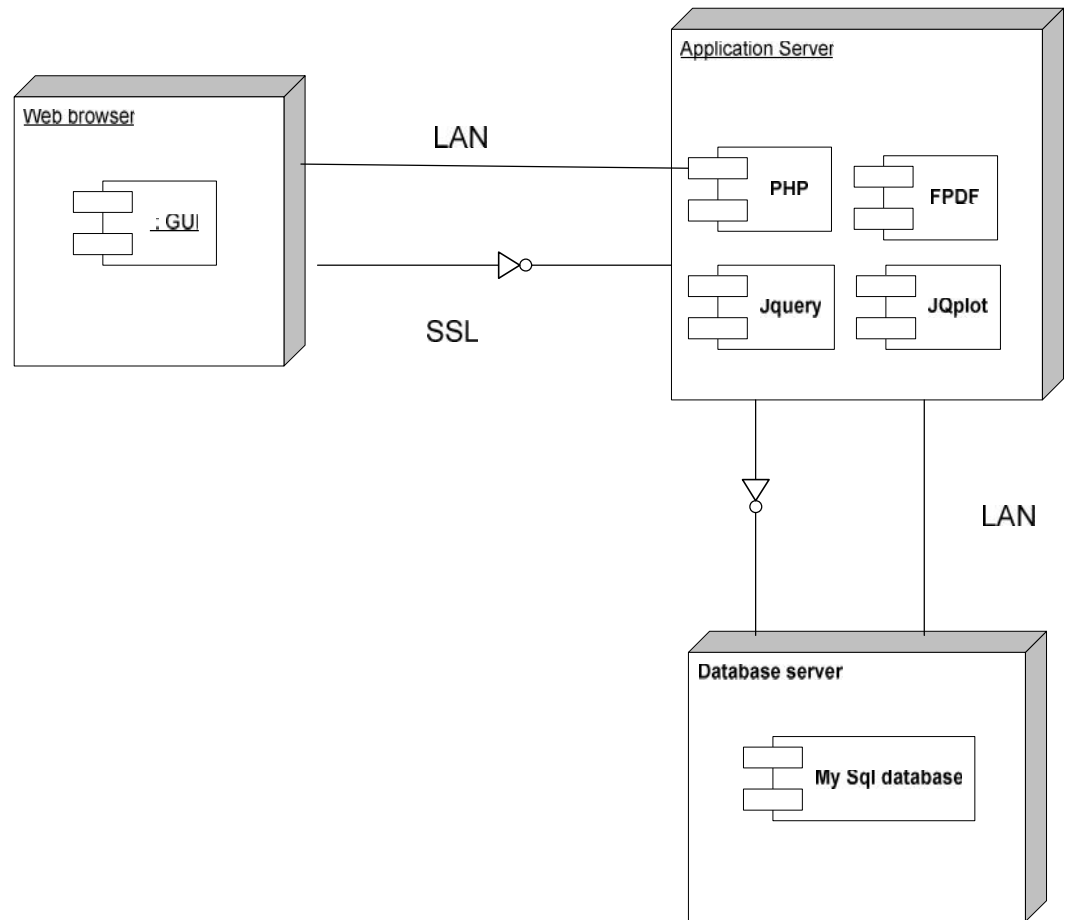
### 3.7 Module Hierarchy Diagram



### 3.8 Component Diagram



### 3.9 Deployment Diagram



### 3.10 Module Specifications

The System is based on following module which contains

- Information System.
- Admission
- Document
- Payment
- I-Card Generation

Brief information about above modules is as follows

- **Information System**

This module contains the basic setting required for the use of the ERP modules. In this module the admin has to make setting for different information system such as student, staff, college etc.

The various setting are provided to the respective administrator  
To start various sub systems.

- Admission

This module contains the setting the various procedure for the different programme and for different year. The procedure is follow and appropriate entry is store. Various phases are to be followed in order to confirmation of admission

The system is able to track the individual record and helps to guide the user.

- Document

In the document management module all records related to document are store. This help to find out current status of applicant document and we can easily retrieve the information from it.

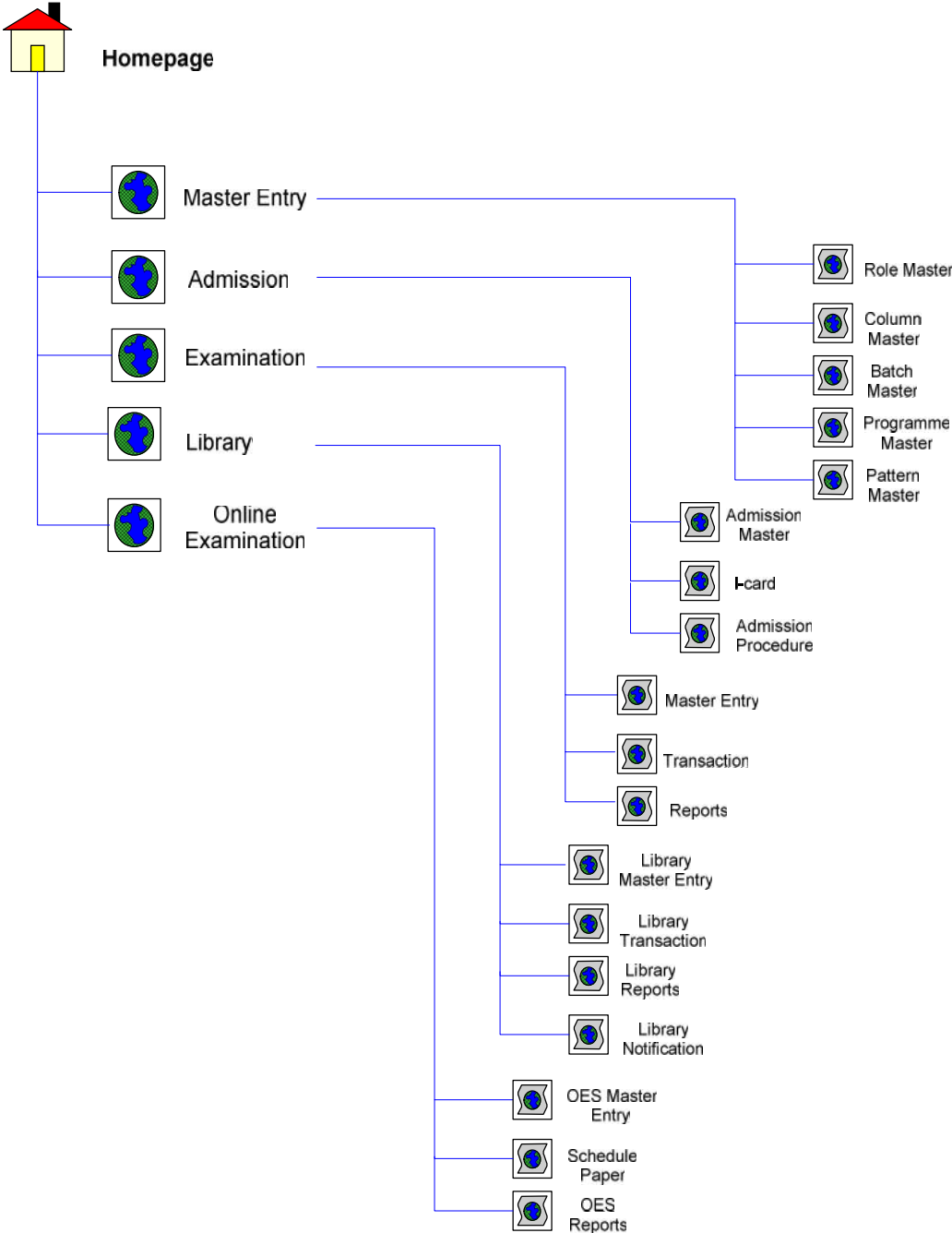
- Payment

This stores the all payment related records in to sorted manner such that even installment details can easily find out. It has a facility to add new types of payment type, payment modes which can be modified as per the requirement. Finalizing the payment structure helps to faster the process.

- I-Card Generation

This process generate I card with required fields and templates as per the admin specified. This helps to print faster and changes can be possible instantly on one click.

### 3.11 Web Site Map Diagram





### 3.12 User Interface Design

#### 1) Admission Form Entry

The screenshot displays a web-based form titled "Admission Form". The form contains the following fields and controls:

- Programme:** A dropdown menu with "Select" as the current selection.
- Batch:** A dropdown menu with "Select" as the current selection.
- Admission Year:** A text input field.
- Form No:** A text input field with "Form No" as a placeholder.
- Buttons:** A blue "save" button with a green checkmark icon and a red "Clear" button with a red 'x' icon.

# ADMISSION SYSTEM WITH I-CARD GENERATION

## 2) Fill Wizard Form

The screenshot shows a 'Fill Wizard' window. At the top, there is a blue header with the text 'Fill Wizard'. Below this, there are two dropdown menus: 'Programme' and 'Batch', both with 'Select' as the current value. Underneath the dropdowns are two buttons: a grey 'Search' button with a magnifying glass icon and a red 'Clear' button with an 'X' icon. Below the search area is a table with columns: 'Select', 'User Id', 'Student Name', 'Total Step', 'Current Step', and 'Actions'. The table is currently empty, displaying 'No data available in table' and 'Showing 0 to 0 of 0 entries'. At the bottom of the table area, there is a 'Show 10 entries' dropdown and a 'Search:' text input field.

## 3) Personal Details Form

The screenshot shows a 'Student wizard' window with a blue header. The wizard is divided into three tabs: 'Personal', 'Guardian', and 'Academics'. The 'Personal' tab is active and shows a form with the following fields: 'Father's Full Name', 'Mother Name', 'Nationality', 'Religion', 'Category' (with a 'Select category' dropdown), 'Sub-Category', 'Location', 'Mobile No.', 'Permanent Address', and 'Correspondence Address'. There is a checkbox labeled 'same as above' next to the 'Permanent Address' field. A 'save' button is located at the bottom center of the form. A 'Close Wizard' button is visible in the top right corner of the window.

# ADMISSION SYSTEM WITH I-CARD GENERATION

## 4) Guardian Detail Form

The screenshot shows the 'Guardian Detail' step of a 'Student Wizard'. The interface includes a progress bar with three steps: Personal (1), Guardian (2), and Academics (3). The 'Guardian' step is active. The form contains the following fields:

- Relation:
- Guardian Name:
- Permanent Address:
- SAME AS PREVIOUS
- Correspondence Address:
- Landline:
- Mobile Number:
- Email Id:
- Occupation:
- Office Phone No:
- Annual Income:

Navigation buttons: Previous, Next, Close Wizard.

## 5) Academics Detail Form

The screenshot shows the 'Academic Details' step of a 'Student Wizard'. The progress bar shows Personal (1), Graduation (2), and Academics (3). The 'Academics' step is active. The form contains a table for academic records:

| Title                     | Board/University     | School/College Name  | Passing Year         | Marks Obtained       | Out Of               | percentage/Grade     | Actions                             |
|---------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-------------------------------------|
| 1. S.S.C./Equivalent      | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="button" value="edit"/> |
| 2. H.S.C./Equivalent      | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="button" value="edit"/> |
| 3. Graduation/Postgraduat | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="button" value="edit"/> |

Navigation button: Previous.

## 6) Document Submission Form

The screenshot shows the 'Document Submission' form. It contains the following fields:

- Form No:  (Input form number and press enter)
- Programme:
- Batch:
- Current status:
- Category:
- Document Submission Date:

# ADMISSION SYSTEM WITH I-CARD GENERATION

## 7) Admission Confirmation Form

The screenshot shows a web-based form titled "Admission confirmation". At the top, there is a "Form No." field with the value "124" and a green checkmark. Below this, the form is divided into several sections:

- Programme Details:** Includes fields for "Programme" (BSC (H) - Bachelor of Computer Sci), "Batch" (2002-2012), and "Category" (Open).
- Fee Details:** Includes fields for "Tuition Fees" (N/A), "Exam Fee" (5000), and "Exam Resulting" (A).
- Document Submitter:** Includes fields for "Name" (Indrani), "Address" (Indrani), and "Mobile" (9845678901).
- Status Details:** Includes a "Current status" field with the value "Fee pending".
- Other Details:** Includes a "Email" field with the value "E-mail" and a note "(Enter Email and confirm admission)".

At the bottom of the form, there are two buttons: "Save and confirm" (green) and "Clear" (red).

## 8) Category wise Document List Form

The screenshot shows a web-based form titled "Set category wise doc list". At the top, there are two dropdown menus: "Programme" (Set) and "Category" (Set). Below these, the form is divided into three main sections:

- Default Document for Programme:** A list of document types with checkboxes: "Ammirite", "Nationality", "Leaving Certificate", "Income Certificate", "Validity certificate", "Caste Certificate", "Skill certificate", "Borrow certificate", and "New Handicap Certificate". An "Add" button is located below this list.
- Set compulsory Documents:** An empty box for defining compulsory documents.
- Other Documents:** An empty box for defining other documents.

At the bottom of the form, there are two buttons: "Submit" (blue) and "Clear" (red).

# ADMISSION SYSTEM WITH I-CARD GENERATION

## 9) Part Duration Form

### Part Duration Master

\* **Programme**  
Select

\* **Duration**

No of Part

| SR No                       | Part Name | Duration | parent  | Part Duration Id     | Actions |
|-----------------------------|-----------|----------|---------|----------------------|---------|
| No data available in table  |           |          |         |                      |         |
| Showing 0 to 0 of 0 entries |           |          |         |                      |         |
| Show                        | 10        | entries  | Search: | <input type="text"/> |         |

## 10) Payment Form

### Payment Form

\* **Payment Type**  
Fees

\* **Payment Mode**  
cash

\* **Form No**  
121

(Input form number and press enter)

**Admission status**

Programme  
[MCM] - Master of Computer Management

Batch  
2010-2012

Admission Year  
Year 1

Current status  
Required document submitted

Category  
Open

**Fill payment details**

\* **Date**

\* **Chalan No**  
Chalan No

Total Amount  
80000

Amount Paid  
Paid Amount

# ADMISSION SYSTEM WITH I-CARD GENERATION

## 11) Programme Procedure Form

**set procedures for Programme**

**Programme:**

**Batch:**

**Year:**  First Year  Rest all year

**Procedures:**

- Form Verification
- Form Distribution
- Fees Payment
- Account Creation
- Document Submission
- Admission Confirmation

Set Procedure order

## 12) Programme Master Form

**Programme Master Details**

**\* Programme Name:**

**\* Intake:**

**\* Duration:**  Yr  Month

**\* Pattern Type:**

**\* Abbreviation:**

| Sr.No. | Name                              | Intake | Duration | Pattern | Abbreviation | Actions |
|--------|-----------------------------------|--------|----------|---------|--------------|---------|
| 1      | Master of Computer Application    | 60     | 36       | 2003    | MCA          |         |
| 2      | Bachelor of Software Engineering  | 120    | 36       | 2003    | B.S.(S.F.)   |         |
| 3      | Bachelor of computer Management   | 55     | 36       | 2005    | BCM          |         |
| 4      | Bachelor of computer Application  | 60     | 36       | 2003    | BCA          |         |
| 5      | Master Of Business Administration | 60     | 74       | 2003    | MBA          |         |
| 6      | Bachelor of Computer Science      | 60     | 36       | 2003    | B.Sc(C.S.)   |         |
| 7      | Master of Commerce                | 120    | 36       | 2003    | Mcom         |         |
| 8      | Master of Computer Management     | 20     | 24       | 2003    | MCM          |         |

(1) Showing 1 to 8 of 8 entries.

### 3.13 Table specifications

#### User Info Table:

| Field Name       | Data Type      | Size | Constrains  |
|------------------|----------------|------|-------------|
| user_id          | Int            | 11   | Primary Key |
| adm_sum_id       | Int            | 11   | Foreign key |
| prefix_id        | Int            | 11   | Foreign key |
| first_name       | Varchar        | 30   |             |
| middle_name      | Varchar        | 30   |             |
| last_name        | Varchar        | 30   |             |
| gender           | enum('M', 'F') |      |             |
| dob              | Date           |      |             |
| email            | Varchar        | 100  |             |
| password         | Varchar        | 32   |             |
| secondary_email  | Varchar        | 100  |             |
| activation       | Varchar        | 40   |             |
| deactivation     | Varchar        | 40   |             |
| status_id        | Int            | 11   | Foreign key |
| current_step     | Int            | 2    |             |
| total_step       | Int            | 2    |             |
| wizard_status    | Int            | 2    |             |
| role_master_id   | Int            | 11   | Foreign key |
| current_batch_id | Int            | 11   | Foreign key |
| joining_batch_id | Int            | 11   | Foreign key |
| image            | Text           |      |             |
| display          | enum('Y', 'N') |      |             |
| date_created     | datetime       |      |             |
| date_modified    | timestamp      |      |             |
| created_by       | Int            | 12   |             |
| modified_by      | Int            | 12   |             |

## ADMISSION SYSTEM WITH I-CARD GENERATION

### Role\_master

| Field Name       | Data Type      | Size | Constrains  |
|------------------|----------------|------|-------------|
| role_master_id   | Int            | 11   | Primary Key |
| role_id          | Int            | 11   |             |
| role_name        | Varchar        | 50   |             |
| role_description | Text           |      |             |
| display          | enum('Y', 'N') |      |             |
| date_created     | datetime       |      |             |
| date_modified    | timestamp      |      |             |
| created_by       | Int            | 12   |             |
| modified_by      | Int            | 12   |             |

### Status\_master

| Field Name    | Data Type      | Size | Constrains  |
|---------------|----------------|------|-------------|
| status_id     | Int            | 11   | Primary Key |
| status_name   | Varchar        | 25   |             |
| description   | text           |      |             |
| display       | enum('Y', 'N') |      |             |
| date_created  | datetime       |      |             |
| date_modified | timestamp      |      |             |
| created_by    | Int            | 12   |             |
| modified_by   | Int            | 12   |             |



## ADMISSION SYSTEM WITH I-CARD GENERATION

### Programme

| Field Name          | Data Type      | Size | Constrains  |
|---------------------|----------------|------|-------------|
| programme_id        | Int            | 11   | Primary Key |
| programme_master_id | Int            | 11   | Foreign key |
| pattern_start_year  | Int            | 5    |             |
| pattern_end_year    | Int            | 5    |             |
| prog_status_id      | Int            | 11   | Foreign key |
| no_of_part          | Int            | 2    |             |
| degree_type_id      | Int            | 11   | Foreign key |
| display             | enum('Y', 'N') |      |             |
| date_created        | datetime       |      |             |
| date_modified       | timestamp      |      |             |
| created_by          | Int            | 12   |             |
| modified_by         | Int            | 12   |             |

### Procedure\_master

| Field Name     | Data Type      | Size | Constrains  |
|----------------|----------------|------|-------------|
| pro_mas_id     | Int            | 11   | Primary Key |
| procedure_name | Varchar        | 50   |             |
| description    | Text           |      |             |
| display        | enum('Y', 'N') |      |             |
| date_created   | datetime       |      |             |
| date_modified  | timestamp      |      |             |
| created_by     | Int            | 12   |             |
| modified_by    | Int            | 12   |             |

## ADMISSION SYSTEM WITH I-CARD GENERATION

### Programme\_procedure

| Field Name    | Data Type      | Size | Constrains  |
|---------------|----------------|------|-------------|
| prog_proc_id  | Int            | 11   | Primary Key |
| programme_id  | Int            | 11   | Foreign key |
| batch_id      | Int            | 11   | Foreign key |
| adm_year      | Varchar        | 20   |             |
| pro_mas_id    | Int            | 11   | Foreign key |
| pro_ser_no    | Int            | 11   |             |
| status_id     | Int            | 11   | Foreign key |
| display       | enum('Y', 'N') |      |             |
| date_created  | Datetime       |      |             |
| date_modified | timestamp      |      |             |
| created_by    | Int            | 12   |             |
| modified_by   | Int            | 12   |             |

### College\_details\_master

| Field Name    | Data Type      | Size | Constrains  |
|---------------|----------------|------|-------------|
| college_id    | Int            | 11   | Primary Key |
| college_name  | Varchar        | 100  |             |
| address       | Varchar        | 100  |             |
| establishment | Date           |      |             |
| phone_no      | Varchar        | 20   |             |
| email         | Varchar        | 100  |             |
| website       | Varchar        | 100  |             |
| fax           | Varchar        | 20   |             |
| display       | enum('Y', 'N') |      |             |
| date_created  | Datetime       |      |             |
| date_modified | timestamp      |      |             |
| created_by    | Int            | 12   |             |
| modified_by   | Int            | 12   |             |

## ADMISSION SYSTEM WITH I-CARD GENERATION

### Personal\_master

| Field Name             | Data Type      | Size | Constrains  |
|------------------------|----------------|------|-------------|
| personal_id            | int            | 11   | Primary Key |
| user_id                | Int            | 11   | Foreign key |
| role_master_id         | Int            | 11   | Foreign key |
| mother_name            | Varchar        | 50   |             |
| father_name            | Varchar        | 50   |             |
| religion               | Varchar        | 30   |             |
| caste                  | Varchar        | 30   |             |
| sub_caste              | Varchar        | 30   |             |
| nationality            | Varchar        | 30   |             |
| permanent_address      | Varchar        | 100  |             |
| correspondence_address | Varchar        | 100  |             |
| landline               | Varchar        | 15   |             |
| mobile                 | Varchar        | 15   |             |
| roll_no                | Int            | 11   | Foreign key |
| display                | enum('Y', 'N') |      |             |
| date_created           | datetime       |      |             |
| date_modified          | timestamp      |      |             |
| created_by             | Int            | 12   |             |
| modified_by            | Int            | 12   |             |

## ADMISSION SYSTEM WITH I-CARD GENERATION

### Academic\_details

| Field Name          | Data Type      | Size | Constrains  |
|---------------------|----------------|------|-------------|
| academic_details_id | Int            | 11   | Primary Key |
| academic_id         | Int            | 11   | Foreign key |
| year                | Int            | 2    |             |
| marks               | Int            | 5    |             |
| out_of              | Int            | 5    |             |
| grade               | Varchar        | 1    |             |
| display             | enum('Y', 'N') |      |             |
| date_created        | datetime       |      |             |
| date_modified       | timestamp      |      |             |
| created_by          | Int            | 12   |             |
| modified_by         | Int            | 12   |             |

### Payment\_master

| Field Name    | Data Type      | Size | Constrains  |
|---------------|----------------|------|-------------|
| pay_id        | Int            | 11   | Primary Key |
| pay_type_id   | Int            | 11   | Foreign key |
| ref_table_id  | Int            | 11   | Foreign key |
| ref_record_id | Int            | 11   | Foreign key |
| amt_paid      | Int            |      |             |
| pay_date      | datetime       |      |             |
| pay_mode_id   | Int            | 11   | Foreign key |
| desc          | text           |      |             |
| display       | enum('Y', 'N') |      |             |
| date_created  | datetime       |      |             |
| date_modified | timestamp      |      |             |
| created_by    | Int            | 12   |             |
| modified_by   | Int            | 12   |             |

## ADMISSION SYSTEM WITH I-CARD GENERATION

### Fee\_structure\_master

| Field Name      | Data Type      | Size | Constrains  |
|-----------------|----------------|------|-------------|
| fee_struct_id   | Int            | 11   | Primary Key |
| programme_id    | Int            | 11   | Foreign key |
| batch_master_id | Int            | 11   | Foreign key |
| category_id     | Int            | 11   | Foreign key |
| fee_amt         | Bigint         | 20   |             |
| display         | enum('Y', 'N') |      |             |
| date_created    | datetime       |      |             |
| date_modified   | timestamp      |      |             |
| created_by      | Int            | 12   |             |
| modified_by     | Int            | 12   |             |

### Pay\_type

| Field Name    | Data Type      | Size | Constrains  |
|---------------|----------------|------|-------------|
| pay_type_id   | Int            | 11   | Primary Key |
| pay_type_name | Varchar        | 50   |             |
| description   | Text           |      |             |
| display       | enum('Y', 'N') |      |             |
| date_created  | datetime       |      |             |
| date_modified | timestamp      |      |             |
| created_by    | Int            | 12   |             |
| modified_by   | Int            | 12   |             |

## ADMISSION SYSTEM WITH I-CARD GENERATION

### category\_master

| Field Name    | Data Type      | Size | Constrains  |
|---------------|----------------|------|-------------|
| category_id   | Int            | 11   | Primary Key |
| cat_name      | Varchar        | 50   |             |
| cat_desc      | text           |      |             |
| display       | enum('Y', 'N') |      |             |
| date_created  | datetime       |      |             |
| date_modified | timestamp      |      |             |
| created_by    | Int            | 12   |             |
| modified_by   | Int            | 12   |             |

### Cat\_doc\_master

| Field Name             | Data Type      | Size | Constrains  |
|------------------------|----------------|------|-------------|
| cat_doc_id             | int            | 11   | Primary Key |
| doc_mas_ids            | Varchar        | 100  |             |
| compulsory_doc_mas_ids | Varchar        | 100  |             |
| other_doc_mas_ids      | Varchar        | 100  |             |
| programme_id           | Int            | 11   | Foreign key |
| category_id            | Int            | 11   | Foreign key |
| display                | enum('Y', 'N') |      |             |
| date_created           | datetime       |      |             |
| date_modify            | timestamp      |      |             |
| created_by             | Int            | 12   |             |
| modified_by            | Int            | 12   |             |

## ADMISSION SYSTEM WITH I-CARD GENERATION

### Doc\_stud\_submission

| Field Name             | Data Type      | Size | Constrains  |
|------------------------|----------------|------|-------------|
| doc_stud_submission_id | Int            | 11   | Primary Key |
| doc_stud_id            | Int            | 11   | Foreign key |
| doc_mas_id             | Int            | 11   | Foreign key |
| submitted_date         | date           |      |             |
| returned_date          | date           |      |             |
| doc_status_id          | Int            | 11   | Foreign key |
| display                | enum('Y', 'N') |      |             |
| date_created           | datetime       |      |             |
| date_modified          | timestamp      |      |             |
| created_by             | Int            | 12   |             |
| modified_by            | Int            | 12   |             |

### Icard\_fields

| Field Name       | Data Type      | Size | Constrains  |
|------------------|----------------|------|-------------|
| icard_field_id   | int(11)        | 11   | Primary Key |
| icard_field_name | varchar(50)    |      |             |
| description      | text           |      |             |
| prog_proc_id     | int(12)        | 11   | Foreign key |
| display          | enum('Y', 'N') |      |             |
| date_created     | datetime       |      |             |
| date_modified    | timestamp      |      |             |
| created_by       | int(11)        | 12   |             |
| modified_by      | int(11)        | 12   |             |

## ADMISSION SYSTEM WITH I-CARD GENERATION

### Part\_duration\_master

| Field Name       | Data Type      | Size | Constrains  |
|------------------|----------------|------|-------------|
| part_duration_id | Int            | 11   | Primary Key |
| programme_id     | Int            | 11   | Foreign key |
| part_name        | Varchar        | 50   |             |
| part_duration    | Int            | 11   |             |
| part_postfix     | Varchar        | 30   |             |
| parents          | Varchar        | 100  |             |
| childs           | Varchar        | 100  |             |
| display          | enum('Y', 'N') |      |             |
| date_created     | datetime       |      |             |
| date_modified    | timestamp      |      |             |
| created_by       | Int            | 12   |             |
| modified_by      | Int            | 12   |             |

### Admission\_status

| Field Name      | Data Type      | Size | Constrains  |
|-----------------|----------------|------|-------------|
| adm_status_id   | Int            | 11   | Primary Key |
| adm_status_name | Varchar        | 50   |             |
| description     | text           |      |             |
| display         | enum('Y', 'N') |      |             |
| date_created    | datetime       |      |             |
| date_modified   | timestamp      |      |             |
| created_by      | Int            | 12   |             |
| modified_by     | Int            | 12   |             |



## ADMISSION SYSTEM WITH I-CARD GENERATION

### Adm\_summary

| Field Name       | Data Type      | Size | Constrains  |
|------------------|----------------|------|-------------|
| adm_sum_id       | Int            | 11   | Primary Key |
| form_no          | Int            | 11   | Foreign key |
| user_id          | Int            | 11   | Foreign key |
| prospectus       | enum('Y', 'N') |      |             |
| batch_master_id  | Int            | 11   | Foreign key |
| programme_id     | Int            | 11   | Foreign key |
| category_id      | Int            | 11   | Foreign key |
| part_duration_id | Int            | 11   | Foreign key |
| chalan_no        | Varchar        | 10   |             |
| total_amt        | Int            | 8    |             |
| paid_amt         | Int            | 8    |             |
| pending_amt      | Int            | 8    |             |
| email            | Varchar        | 100  |             |
| activation       | Varchar        | 32   |             |
| deactivation     | Varchar        | 32   |             |
| icard_master_id  | Int            | 11   | Foreign key |
| adm_status_id    | Int            | 11   | Foreign key |
| total_deposit    | Int            | 8    |             |
| prog_proc_id     | Int            | 11   | Foreign key |
| display          | enum('Y', 'N') |      |             |
| date_created     | Datetime       |      |             |
| date_modified    | Timestamp      |      |             |
| created_by       | Int            | 12   |             |
| modified_by      | Int            | 12   |             |

## ADMISSION SYSTEM WITH I-CARD GENERATION

### Batch\_master

| Field Name            | Data Type      | Size | Constrains  |
|-----------------------|----------------|------|-------------|
| batch_master_id       | int(11)        | 11   | Primary Key |
| programme_id          | int(11)        | 11   | Foreign key |
| year                  | varchar(9)     | 9    |             |
| result_available_till | int(11)        | 2    |             |
| part_duration_id      | int(11)        | 11   | Foreign key |
| current_part_id       | int(11)        | 11   | Foreign key |
| status_id             | int(12)        | 11   | Foreign key |
| display               | enum('Y', 'N') |      |             |
| date_created          | datetime       |      |             |
| date_modified         | timestamp      |      |             |
| created_by            | int(12)        | 12   |             |
| modified_by           | int(12)        | 12   |             |

### 3.14 Test Procedures and Implementation

Once the source code has been generated software must be tested to uncover (and correct) as many errors as possible before delivery of the product. Our goal is to build a series of test cases that have likelihood of finding errors. Testing begins “in the small” and progresses “to the large”.

Software testing is a process of executing programs with objective of finding error. S/w testing is simply how easily a computer program can be tested.

As per Glen Myers there are three objectives for testing which follows are as:

- A good test case is one that has a high probability of finding as yet undiscovered error.
- A successful test is one that uncovers as yet undiscovered error.
- Testing is a process of executing a program with the intent of finding an error.

Testing can't show the absence of defects, it can only show that s/w errors are present. Therefore it is necessary to keep this in mind while conducting the testing part of s/w. There are many testing principles as recommended by Davis. According to the principles, the testing phase of this project done. These are follows:

- All tests should be traceable to customer requirements. The testing should be done in the front of some of users to show the functionality of the system.
- Test should be planned long before testing begins.
- Testing should begin “In the small” and progress towards testing “In the large”.
- To the most effective an independent third party should conduct testing.
- A good has a high probability of finding out the errors.
- A good test is not redundant.
- A good test should be either too simple not too complex.

In addition, data collected as testing is conducted provide a good induction of s/w quality as a whole.

### Testing Methodologies

We tested our system according to methodologies and testing methodologies adopted are:

- Unit testing
- Sub-system testing
- System testing
- Acceptance testing

The tested methodologies were adopted in the below given sequence.

Unit testing → Subsystem testing → System testing → Acceptance testing

### Unit Testing (White Box Testing)

Each module of the system was tested separately to ensure its proper functioning.

Activities follows in the unit testing are:

- Ensure all loops are terminated properly in this system.
- Identification and removal of abnormal termination of all loops.

- Ensuring the all errors was trapped. We ensured that the system trapped all the errors by working on all the option we have in this system. For example, we tested the working of committees, tenders, meeting notices etc. properly at every terminal.
- Check the values returned from called program. We checked the values returned by filling every option. We went to the database and checked the values entered into the database as well as the confirmation message that was to be displayed on the screen after filling the form of the every option.

### **Sub System Testing**

A sub system testing is a collection of modules. All subsystems were tested to ensure dataflow correctness, functional validity and interface integrity.

### **System Testing**

This testing was done once all the subsystems had been completely developed and tested independently. The system was tested to ensure proper interaction between all the subsystems. It ensures the actual working

of the system. For example, if the employee ID does not exist how his committee could status could be displayed. The performance of the system was continuously monitored during this phase of testing.

### **Acceptance Testing (Black Box Testing)**

This was the latest phase in the system testing process. The system was tested to check if confirmed to the customer's requirements. All the employee of Technical and financial department tested the respective system according to his or her requirements.

### **GUI Testing**

Because many modern GUIs have the same look and feel, a series of standard test can be derived. Finite state modeling graph may be used to derive a series of tests that address specific data and program objects that are relevant to the GUI.

GUI testing is also known as **Functional Testing**. Functional Testing is a testing process to derive a set of input conditions that will fully exercise all

functional requirements for a program. It emphasizes to find error in following categories:

- Incorrect or missing functions.
- Interface errors.
- Error in data structure or external database access.
- Performance errors.

Testing the expected Application flow or logic

The application flow is actually a series of screens through which the user can interact with the system. These screens can be depicted as state diagram where each state transition occurs via requests and responses. The behaviors of the system can be easily verified against this state diagram.



### Database Testing

This will include testing the correctness of the data that will ensure the following features:

- Database schema reflects exactly as per the design.
- Security and Privacy features are protected properly.
- All the data in the database is correct.
- Check for duplication, naming conventions is done.
- DBMS performs all the functions of insertion, deletion and updating correctly.
- Check for table, record, attributes, primary key, foreign key, constraints, and not null, referential integrity.
- Observing the state of the database before and after testing.
- Using equivalence partitioning and boundary value analysis where the data needs to be specified in a specific range.
- Checking response time for retrieval of data as per the request of the user.

## Test Case Implementation

### Test case 1

| 1.1 | Test procedure for Login Form |  |
|-----|-------------------------------|--|
| 1   | Test code id                  | ECESO1   |
| 2   | Purpose                       | To log into the software by an authenticated user  |
| 3   | Procedure                     | verifying above login id into the database;<br>Applying encryption logic to the password using salted MD5 # algorithm and allowing the role base |
| 4   | Test data                     | Login Id, password, role   |
| 5   | Output                        | Unable to role base functionality to the logged user of the system   |

| 1.2 | Data Matrix |                                |                   |                         |     |
|-----|-------------|--------------------------------|-------------------|-------------------------|-----|
|     | Input attr  | Equivalence class partitioning |                   | Boundary value analysis |     |
|     |             | valid                          | Invalid           | Min                     | Max |
| 1   | Login Id    | a-z,A-z,0 to 9                 | blank, other than | 6                       | 15  |
|     |             |                                | a-z,A-z,0 to 9    |                         |     |
| 2   | password    | a-z,A-z,0 to 9                 | blank, other than | 6                       | 15  |
|     |             |                                | a-z,A-z,0 to 9    |                         |     |

## ADMISSION SYSTEM WITH I-CARD GENERATION

| 1.3 | Test Case      |             |                 |      |
|-----|----------------|-------------|-----------------|------|
|     | Action         | input       | Expected output |      |
| 1   | Enter Login Id | UI1306      | valid           | pass |
|     | Enter Login Id | tant@ 1306# | Invalid         | pass |
| 2   | Enter Password | xxxxxx      | valid           | pass |
|     | Enter Password | \$%zxcvb    | Invalid         | pass |

### Test case 2

| 2.1 | Test procedure for Admission Form |   |
|-----|-----------------------------------|---|
| 1   | <b>Test code id</b>               | ECESO2  |
| 2   | <b>Purpose</b>                    | To enter required details about applicant   |
| 3   | <b>Procedure</b>                  | select Programme from select box<br>select Batch from select box<br>Enter form No |
| 4   | <b>Test data</b>                  | Form No   |
| 5   | <b>Output</b>                     | Unable to enter repeat entry of form  |

| 2.2 | Data Matrix |                                |                                  |                         |     |
|-----|-------------|--------------------------------|----------------------------------|-------------------------|-----|
|     | Input attr  | Equivalence class partitioning |                                  | Boundary value analysis |     |
|     |             | valid                          | Invalid                          | Min                     | Max |
| 1   | form no     | a-z,A-z,0 to 9                 | blank, other than a-z,A-z,0 to 9 | 6                       | 15  |

## ADMISSION SYSTEM WITH I-CARD GENERATION

| <b>2.3</b> | <b>Test Case</b> |         |                 |      |
|------------|------------------|---------|-----------------|------|
|            | Action           | input   | Expected output |      |
| 1          | Enter Form No    | FN001   | valid           | pass |
|            |                  | fa9\$0* | Invalid         | pass |

### Test case 3

| <b>3.1</b> | <b>Test procedure for Personal Info Form</b> |  |
|------------|--|--|
| 1          | <b>Test code id</b>                          | ECESO3   |
| 2          | <b>Purpose</b>                               | To enter required details about user personal info                   |
| 3          | <b>Procedure</b>                             | The above mentioned inputs are stored to the database as per user id |
|            |  |  |
| 4          | <b>Test data</b>                             | user_id, role_id, father's full name, religion, mother's name        |
| 5          | <b>Output</b>                                | caste, sub-caste, nationality  |

## ADMISSION SYSTEM WITH I-CARD GENERATION

| <b>3.2</b> |                        | <b>Data Matrix</b>             |                           |                         |     |
|------------|------------------------|--------------------------------|---------------------------|-------------------------|-----|
|            | Input attr             | Equivalence class partitioning |                           | Boundary value analysis |     |
|            |                        | valid                          | Invalid                   | Min                     | Max |
| 1          | father full name       | alphabetic and space           | all special symbol number | 2                       | 30  |
| 2          | mothers name           | alphabetic and space           | all special symbol number | 2                       | 30  |
| 3          | religion               | alphabetic and space           | all special symbol number | 2                       | 30  |
| 4          | nationality            | alphabetic and space           | all special symbol number | 2                       | 30  |
| 5          | sub-cast               | alphabetic and space           | all special symbol number | 2                       | 30  |
| 6          | correspondence address | alphabetic and space, number   | all special symbol        | 2                       | 50  |
| 7          | permanent address      | alphabetic and space, number   | all special symbol        | 2                       | 50  |
| 8          | landline               | number                         | all alphabetic            | 2                       | 15  |
| 9          | mobile                 | number                         | all alphabetic            | 2                       | 15  |

## ADMISSION SYSTEM WITH I-CARD GENERATION

| <b>3.3</b> | <b>Test Case</b>       |                               |                 |      |
|------------|------------------------|-------------------------------|-----------------|------|
|            | Action                 | input                         | Expected output |      |
| 1          | Enter father name      | Prasanna                      | valid           | pass |
|            |                        | Prasanna65                    | Invalid         | pass |
| 2          | Enter mothers name     | sema                          | valid           | pass |
|            |                        | sema21                        | Invalid         | pass |
| 3          | religion               | Hindu                         | valid           | pass |
|            |                        | 7hindu                        | Invalid         | pass |
| 4          | nationality            | Indian                        | valid           | pass |
|            |                        | Indo77                        | Invalid         | pass |
| 5          | correspondence address | apposit to fc college<br>pune | valid           | pass |
|            |                        | Fc college #&&                |                 |      |
|            |                        | pune                          | Invalid         | pass |
| 6          | landline               | 123456                        | valid           | pass |
|            |                        | as1234567                     | Invalid         | pass |
| 7          | mobile                 | 123456                        | valid           | pass |
|            |                        | as1234567                     | Invalid         | pass |

**Test case 4**

| <b>4.1</b> |                     | <b>Test procedure for Payment Form</b>   |
|------------|---------------------|--|
| 1          | <b>Test code id</b> | ECESO4   |
| 2          | <b>Purpose</b>      | To enter required details about user Payment info  |
| 3          | <b>Procedure</b>    | Select the Payment Type, Payment Mode from select box<br>Enter the form no & press enter<br>Enter Chalan no and amount paid. |
| 4          | <b>Test data</b>    | Form no, Chalan no, Amount paid  |
| 5          | <b>output</b>       | Amount paid is less than or equal to total amount.   |

| <b>4.2</b> |             | <b>Data Matrix</b>             |                   |                         |     |
|------------|-------------|--------------------------------|-------------------|-------------------------|-----|
|            | Input attr  | Equivalence class partitioning |                   | Boundary value analysis |     |
|            |             | valid                          | Invalid           | Min                     | Max |
| 1          | Form no     | a-z,A-z,0 to 9                 | blank, other than | 6                       | 15  |
|            |             |                                | a-z,A-z,0 to 9    |                         |     |
| 2          | Chalan no   | a-z,A-z,0 to 9                 | blank, other than | 2                       | 10  |
|            |             |                                | a-z,A-z,0 to 9    |                         |     |
| 3          | Amount paid | number                         | all alphabetic    | 2                       | 10  |
|            |             |                                |                   |                         |     |

## ADMISSION SYSTEM WITH I-CARD GENERATION

| 4.3 | Test Case       |         |                 |      |
|-----|-----------------|---------|-----------------|------|
|     | Action          | input   | Expected output |      |
| 1   | Enter Form No   | FN001   | valid           | pass |
|     |                 | fa9\$0* | Invalid         | Pass |
| 2   | Enter chalan no | CH8785  | valid           | Pass |
|     |                 | CQ@#/#  | Invalid         | Pass |
| 3   | Enter amount    | 43000   | valid           | Pass |
|     |                 | Asn32   | Invalid         | Pass |
|     |                 | -12000  | Invalid         | Pass |
|     |                 | @3200   | Invalid         | Pass |

### Test case 5

| 5.1 | Test procedure for User Info Form |   |
|-----|-----------------------------------|---|
| 1   | <b>Test code id</b>               | ECES05  |
| 2   | <b>PURPOSE</b>                    | To enter required details about newly created user  |
| 3   | <b>Procedure</b>                  | Enter Form no, first, middle, last name of user.<br>Enter email id.<br>The mentioned inputs are stored to the database as per user id |
| 4   | <b>Test data</b>                  | user_id, First name , middle name, Last name  |
| 5   | <b>Output</b>                     | User info stored successfully   |



## ADMISSION SYSTEM WITH I-CARD GENERATION

| 5.2 | Data Matrix |   |  |                         |     |
|-----|-------------|---|--|-------------------------|-----|
|     | Input attr  | Equivalence class partitioning            |  | Boundary value analysis |     |
|     |             | valid                                     | Invalid                                | Min                     | Max |
| 1   | Form no     | a-z,A-z,0 to 9                            | blank,<br>other than<br>a-z,A-z,0 to 9 | 6                       | 15  |
| 2   | First name  | alphabetic<br>and<br>space                | all special<br>symbol<br>number        | 2                       | 30  |
| 3   | Middle name | alphabetic<br>and<br>space                | all special<br>symbol<br>number        | 2                       | 30  |
| 4   | Last name   | alphabetic<br>and<br>space                | all special<br>symbol<br>number        | 2                       | 30  |
| 5   | Email       | Alphanumeric<br>And special<br>Characters | Repeated<br>use of<br>@,.com           | 2                       | 50  |
|     |             |   |  |                         |     |

## ADMISSION SYSTEM WITH I-CARD GENERATION

| <b>5.3</b> | <b>Test Case</b>  |  |  |                                  |
|------------|-------------------|--|--|----------------------------------|
|            | Action            | input  | Expected output                            |                                  |
| 1          | Enter first name  | Prasanna<br>Prasanna65   | valid<br>Invalid                           | pass<br>pass                     |
| 2          | Enter middle name | Sham<br>Shamm421   | valid<br>Invalid                           | pass<br>pass                     |
| 3          | Enter last name   | Shaha<br>Sh*&12  | valid<br>Invalid                           | pass<br>Pass                     |
| 4          | Enter Email       | Sham12@gmail<br>.com<br>Sham@12@g<br>Sham.com<br>Sher.co@gmail | <br>valid<br>Invalid<br>Invalid<br>Invalid | <br>Pass<br>Pass<br>Pass<br>Pass |