

**Malaviya National Institute Of  
Technology, Jaipur  
Department of Computer Science and  
Technology**

**Software Requirements Specification  
Document on  
“Design and Implementation of Scholarship Portal  
System”**

Submitted By-

Khushboo Choudhary (2016UCP1469)

Sakshi Maheshwari (2016UCP1617)

Twinkal Parmar(2016UCP1700)

# Table of Contents

<b>Topic</b>	<b>Page No.</b>
1. Introduction	
1.1 Purpose	04
1.2 Scope	05
1.3 Definitions, Acronyms, Abbreviations	05
1.4 Overview	05
1.5 References	05
2. General Description	
2.1 Product Perspective	06
2.1.1 Hardware Interfaces	06
2.1.2 Software Interfaces	06
2.1.3 Communication Interfaces	06
2.2 Product Function Summary	06
2.3 User Characteristics	07
2.4 Design and Implementation Constraints	07
2.5 Assumptions and Dependencies	07
3. Specific Requirements	
3.1 Functional Requirements	08
3.1.1 Input/Output	08
3.1.2 Storage Requirements	08
3.1.3 Database	08
3.2 Modules	09
4. Software Design	
4.1 E-R Diagrams	11
5. Non- Functional Requirements	
5.1 Performance	16
5.2 Security	16
5.3 Reliability	16
5.4 Availability	17
5.5 Software Quality	17
5.6 Reusability	17

5.7 Maintainability	17
5.8 Safety	17

# 1.INTRODUCTION

The SRS is produced at the culmination of the analysis task. The function and performance allocated to software as part of the system engineering and refined by establishing a complete information description, a detailed functional description, a representation of system behavior, indication of performance requirements and design constraints, appropriate validation criteria and the other information related to requirements.

The SRS is technical specification of a Scholarship Portal System(SAKSHAM). This specification describes what the proposed system should do without describing how it will do it. It also describes complete external behavior of proposed system.

## 1.1 Purpose

The project “SAKSHAM” is a software package which has been developed to manage student’s information and scholarships details. Students can check the status of their scholarships(accepted/rejected/in progress). The portal finds the eligible students from the registered candidates on the basis of percentage, area, category, annual income and various other constraints.

## **1.2 Scope**

The scope of the Scholarship Portal is that the website can be accessed by any student and he/she can perform further operations. Secondly, all kinds of scholarships can be displayed in the portal and eligible candidates can be found easily.

## **1.3 Definition and Abbreviations**

SPS : Scholarship Portal System

## **1.4 References**

- <https://www.w3schools.com>
- <https://scholarships.gov.in>

## **1.5 Overview**

- This Software Requirements Specification (SRS) is the requirements work product that formally specifies SPS.
- It includes the information of both students and scholarships. Various techniques were used to elicit the requirements and we have identified your needs, analyzed and refined them.
- The objective of this document therefore is to formally describe the system's high level requirements including functional requirements, non-functional requirements and business rules and constraints.

## **2.General Description**

### **2.1 Product Perspective**

- This SPS is a self-contained system that stores the information of students and allows them to apply for various scholarships.Finally,it checks whether the student is eligible or not, then the eligible students receive the scholarships.

#### **2.1.1 Hardware interface:-**

- Operating system : Windows or Linux
- Hard disk : 40 GB
- RAM : 1 GB
- Processor : i3 quad-core CPU

#### **2.1.2 Software interface :-**

- Localhost server
- XAMPP server

#### **2.1.3 Communication interface:-**

- Windows or linux

### **2.2 Product Function Summary**

The SAKSHAM Scholarship Portal will perform the following major functions:-

- Two users are there,student and admin.
- The student's information is asked just once and then stored in the database for further uses.

- All the details of available, upcoming and received scholarships can be viewed by the student.
- The student can apply for the available scholarships and can check the status of the scholarships i.e. if the scholarship is accepted, rejected or still in progress.
- Records can be retrieved when needed.

## **2.3 User Characteristics**

This software is developed such that total appearance of the product to make it more user friendly. The admin will be provided with login id and password. And the students with basic computer skills can use this software easily.

## **2.4 Design and Implementation Constraints**

- **Database**

The system shall use the MySQL Database, which is open source and free.

- **Operating System**

The Development environment shall be Linux or Windows.

- **Web-Based**

The system shall be a Web-based application.

## **2.5 Assumptions and Dependencies**

- It is assumed that one hundred IBM compatible computers will be available before the system is installed and tested.
- It is assumed that the portal will have disciplined and strict administration to perform the admin functions properly.

# 3. Specific Requirements

## 3.1 Functional Requirements

### 3.1.1 Input/Output :-

First Admin Login into the web application and add new scholarship in the database, verify scholarships and view the applied scholarships by the students. Student Login by first registering the username and password, then can fill his/her details, edit the information, apply for scholarships, see the upcoming and available scholarships as well as the received scholarships, edit account settings, give ratings to the website and check the status of the scholarship whether it is accepted, rejected or still in progress.

### 3.1.2 Storage Requirements :-

All the details of the scholarships, students and various other information are stored in the database and the updating of the data can be done through database (internet).

### 3.1.3 Database :-

- **Account Management**

Each Account row shall have the following mandatory information:  
Username, password.

- **Student Information**

Each student shall have the following mandatory information:  
Name, parent's name, date of birth, address, state, category, family income, college name, region, economic group, bank details, educational details, document uploads.

- **Scholarship Information**



Each scholarship shall have the following mandatory information:  
Name, total fund, amount per student, available  
scholarships, constraints i.e. age, economic group, category, etc.

- **Status of the Scholarship**

Each status row shall have either of these three values along with scholarship id, scholarship name, student's name and username :  
accepted, rejected or 'in progress'.

## **3.2 Modules**

The project consists of two modules :

1. Staff/Admin
2. Student

### **Admin Module :**

Functionalities -

- Add new scholarships to the Portal.
- View the scholarships applied by the students.
- Verify the scholarships of the students and hand it over to the eligible candidates.

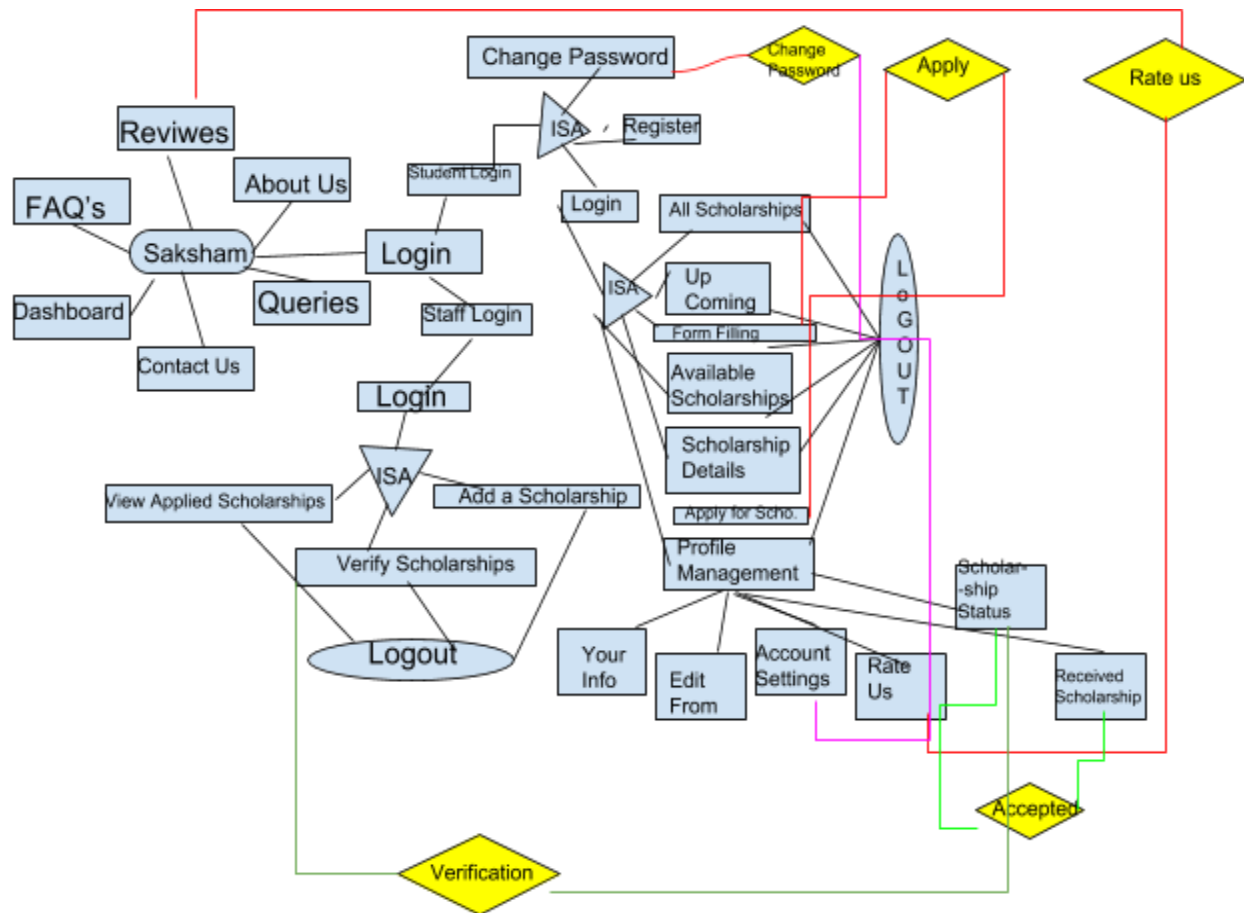
### **Student Module :**

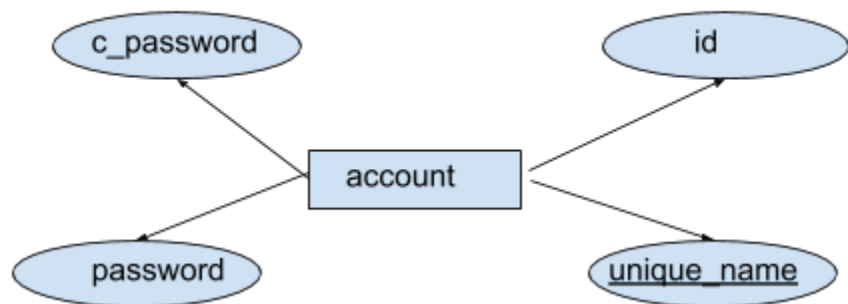
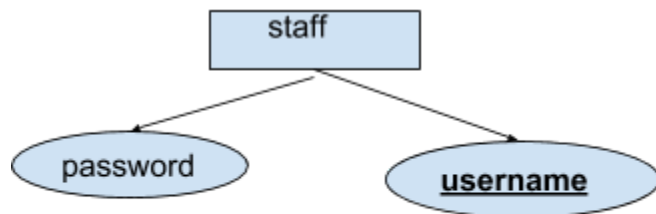
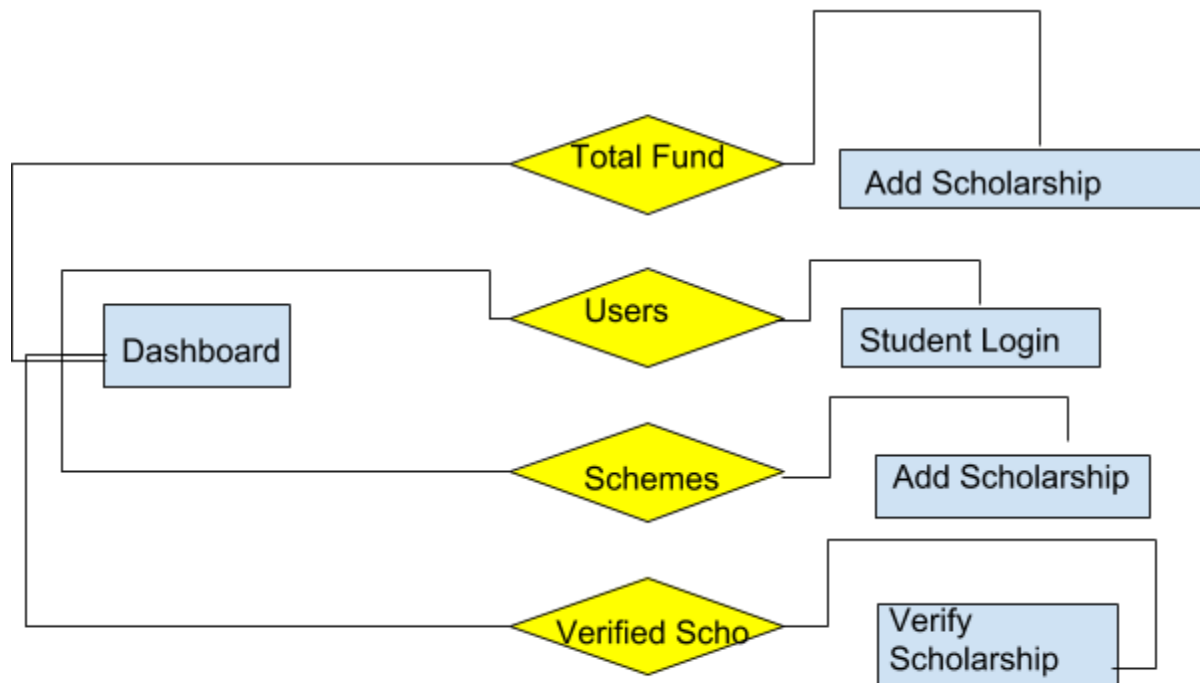
Functionalities -

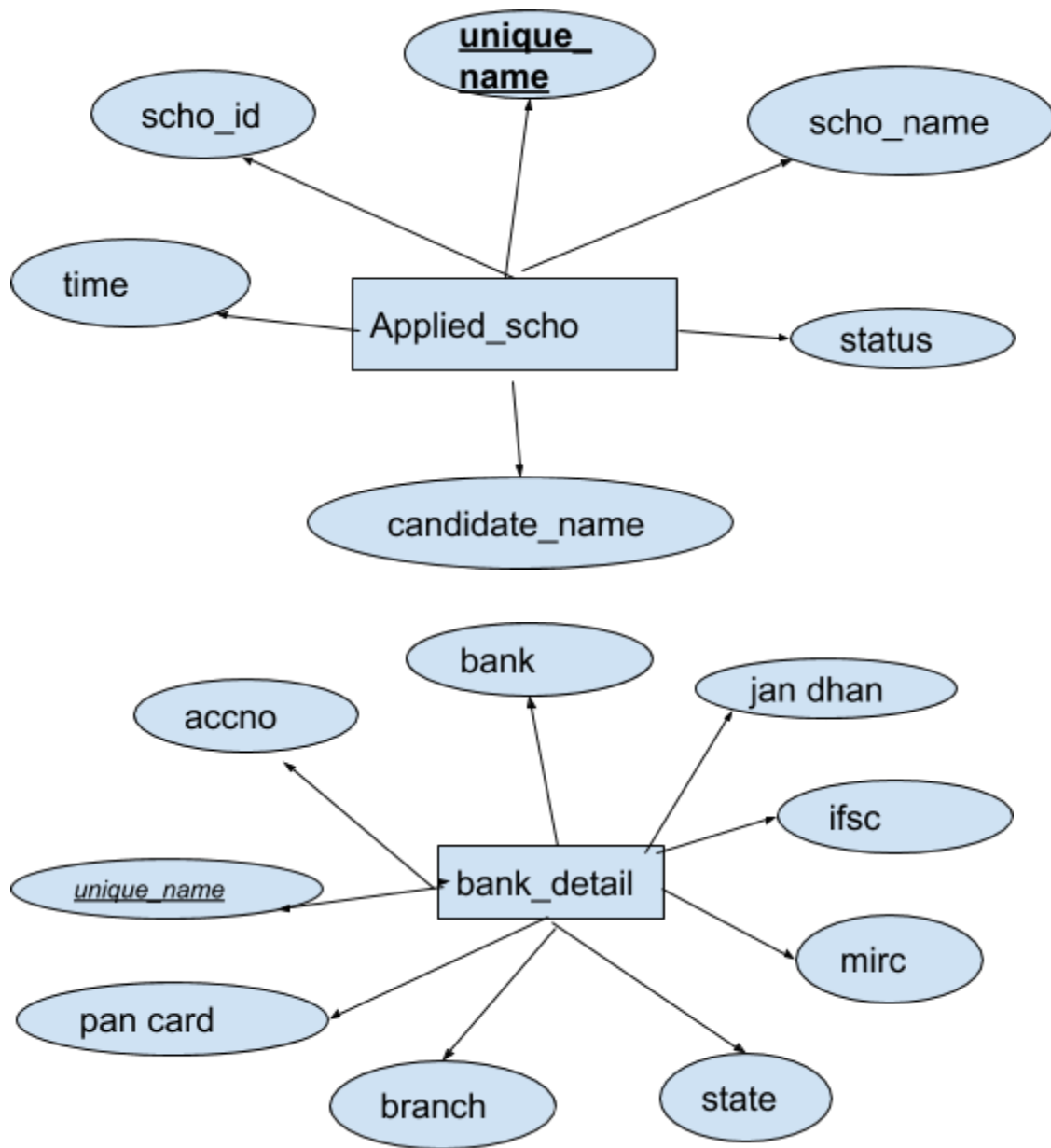
- Enter the information so that it can be saved into the database.
- Update profile or account settings.
- Apply for the scholarships.
- View all scholarship details and the eligibility criteria.
- View scholarship status.
- View received, upcoming and available scholarships

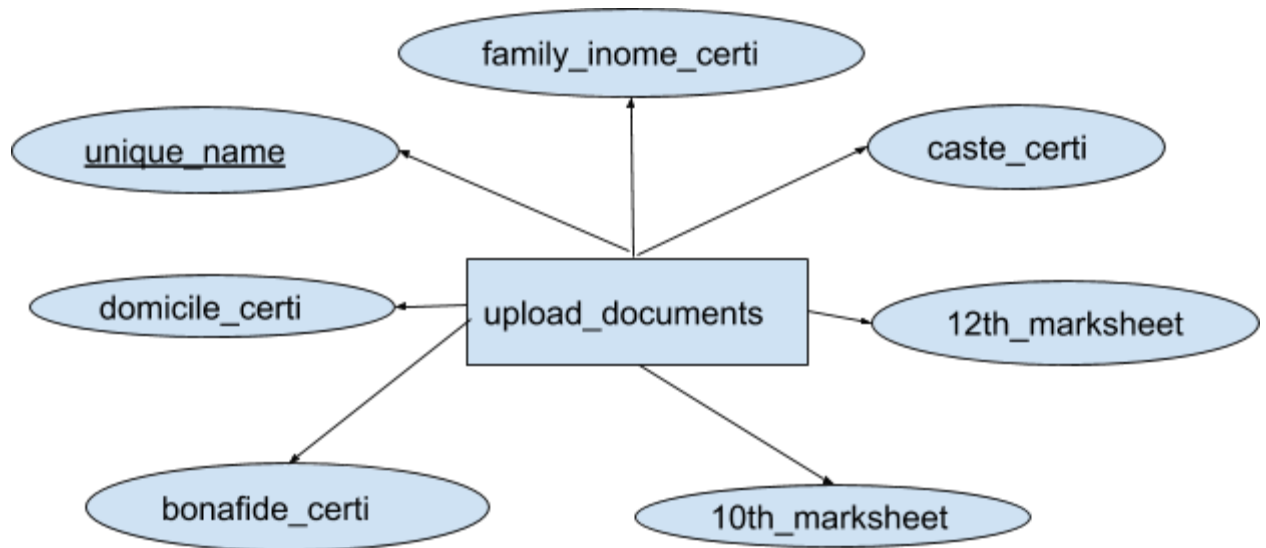
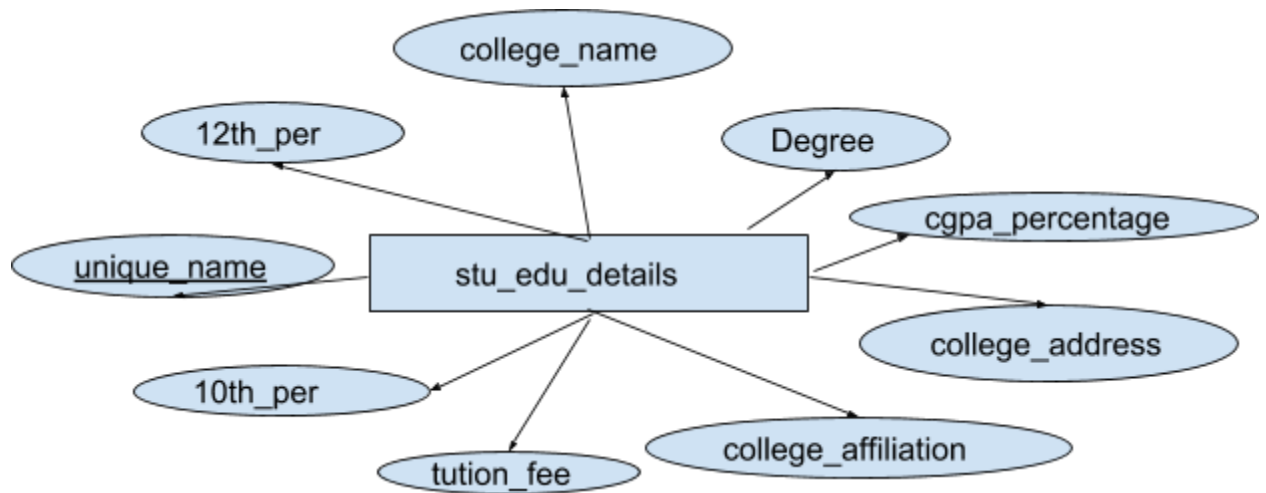
# 4. Software Design

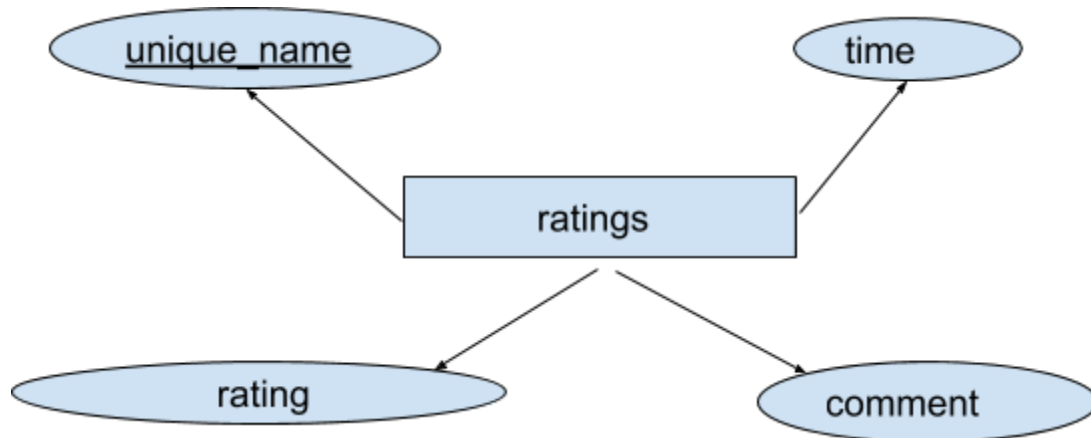
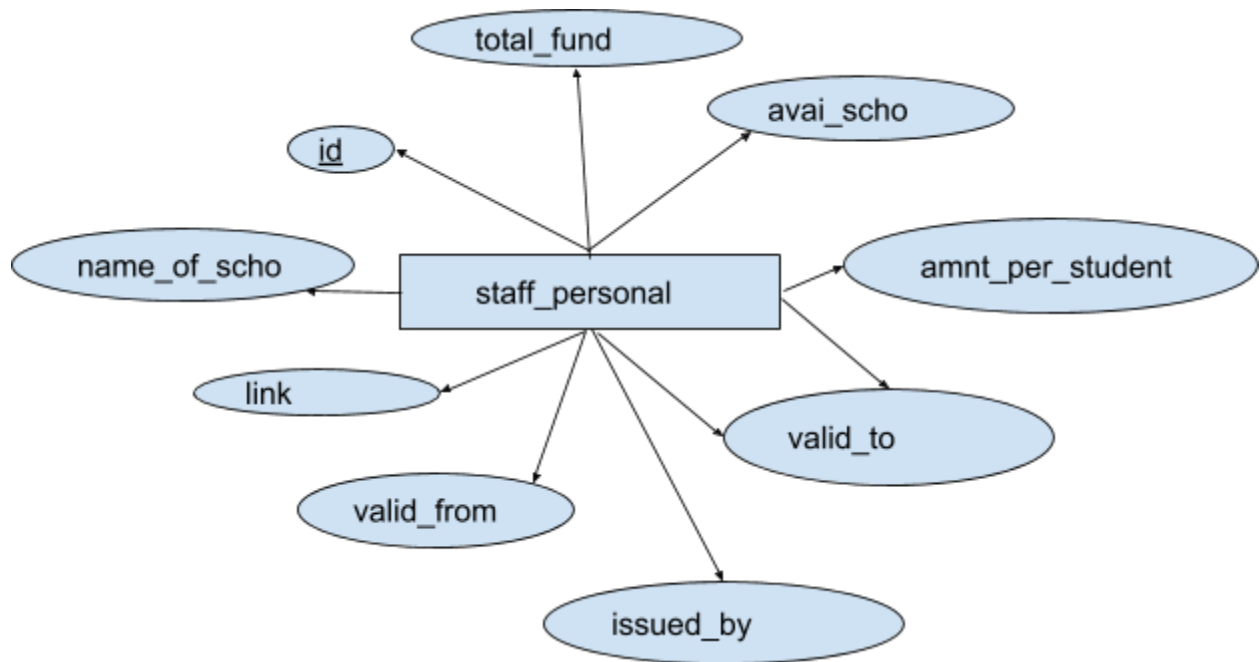
## 4.1 E-R Diagram











admin/tbl\_structure.php?db=youtube&table=fill\_staff2

Server: 127.0.0.1 » Database: youtube » Table: fill\_staff2

Browse Structure SQL Search Insert Export Import Privileges Operations

Table structure Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	id	int(100)			No	None			Change  Drop  More
2	min_primary	int(100)			Yes	NULL			Change  Drop  More
3	max_age	int(100)			Yes	NULL			Change  Drop  More
4	male	text	latin1_swedish_ci		Yes	NULL			Change  Drop  More
5	general_c	text	latin1_swedish_ci		No	None			Change  Drop  More
6	obc	text	latin1_swedish_ci		No	None			Change  Drop  More
7	st	text	latin1_swedish_ci		No	None			Change  Drop  More
8	sc	text	latin1_swedish_ci		No	None			Change  Drop  More
9	sbc	text	latin1_swedish_ci		No	None			Change  Drop  More
10	ebc	text	latin1_swedish_ci		No	None			Change  Drop  More
11	rural	text	latin1_swedish_ci		No	None			Change  Drop  More
12	apl	text	latin1_swedish_ci		No	None			Change  Drop  More
13	married	text	latin1_swedish_ci		No	None			Change  Drop  More
14	widowed_child	text	latin1_swedish_ci		No	None			Change  Drop  More
15	PWD	text	latin1_swedish_ci		No	None			Change  Drop  More
16	Minority	text	latin1_swedish_ci		No	None			Change  Drop  More
17	orphaned	text	latin1_swedish_ci		No	None			Change  Drop  More
18	family_income	int(50)			No	None			Change  Drop  More
19	Andhra_Pradesh	text	latin1_swedish_ci		No	None			Change  Drop  More
20	Arunachal_Pradesh	text	latin1_swedish_ci		No	None			Change  Drop  More
21	Assam	text	latin1_swedish_ci		No	None			Change  Drop  More
22	Bihar	text	latin1_swedish_ci		No	None			Change  Drop  More
23	Chattisgarh	text	latin1_swedish_ci		No	None			Change  Drop  More

Console

admin/tbl\_structure.php?db=youtube&table=fill\_staff2

Server: 127.0.0.1 » Database: youtube » Table: fill\_staff2

Browse Structure SQL Search Insert Export Import Privileges Operations

23	Chattisgarh	text	latin1_swedish_ci		No	None			Change  Drop  More
24	Goa	text	latin1_swedish_ci		No	None			Change  Drop  More
25	Gujarat	text	latin1_swedish_ci		No	None			Change  Drop  More
26	Haryana	text	latin1_swedish_ci		No	None			Change  Drop  More
27	Himachal_Pradesh	text	latin1_swedish_ci		No	None			Change  Drop  More
28	Jammu_Kashmir	text	latin1_swedish_ci		No	None			Change  Drop  More
29	Jharkhand	text	latin1_swedish_ci		No	None			Change  Drop  More
30	Karnataka	text	latin1_swedish_ci		No	None			Change  Drop  More
31	Kerala	text	latin1_swedish_ci		No	None			Change  Drop  More
32	Madhya_Pradesh	text	latin1_swedish_ci		No	None			Change  Drop  More
33	Maharashtra	text	latin1_swedish_ci		No	None			Change  Drop  More
34	Manipur	text	latin1_swedish_ci		No	None			Change  Drop  More
35	Meghalaya	text	latin1_swedish_ci		No	None			Change  Drop  More
36	Mizoram	text	latin1_swedish_ci		No	None			Change  Drop  More
37	Orissa	text	latin1_swedish_ci		No	None			Change  Drop  More
38	Punjab	text	latin1_swedish_ci		No	None			Change  Drop  More
39	Rajasthan	text	latin1_swedish_ci		No	None			Change  Drop  More
40	Sikkim	text	latin1_swedish_ci		No	None			Change  Drop  More
41	Tamilnadu	text	latin1_swedish_ci		No	None			Change  Drop  More
42	Telangana	text	latin1_swedish_ci		No	None			Change  Drop  More
43	Tripura	text	latin1_swedish_ci		No	None			Change  Drop  More
44	Uttarakhand	text	latin1_swedish_ci		No	None			Change  Drop  More
45	Uttar_Pradesh	text	latin1_swedish_ci		No	None			Change  Drop  More
46	West_Bengal	text	latin1_swedish_ci		No	None			Change  Drop  More

/admin/tbl\_structure.php?db=youtube&table=stu\_personal\_info

Server: 127.0.0.1 » Database: youtube » Table: stu_personal_info										
Browse Structure SQL Search Insert Export Import Privileges Operations										
#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action	
<input type="checkbox"/>	1 unique_name	varchar(255)	latin1_swedish_ci		No	None				Change  Drop  More
<input type="checkbox"/>	2 name	text	latin1_swedish_ci		No	None				Change  Drop  More
<input type="checkbox"/>	3 dob	date			No	None				Change  Drop  More
<input type="checkbox"/>	4 age	int(11)			No	None				Change  Drop  More
<input type="checkbox"/>	5 head_of_household	text	latin1_swedish_ci		No	None				Change  Drop  More
<input type="checkbox"/>	6 mothers_name	text	latin1_swedish_ci		No	None				Change  Drop  More
<input type="checkbox"/>	7 fathers_name	text	latin1_swedish_ci		No	None				Change  Drop  More
<input type="checkbox"/>	8 mobile_no	text	latin1_swedish_ci		No	None				Change  Drop  More
<input type="checkbox"/>	9 email_add	text	latin1_swedish_ci		No	None				Change  Drop  More
<input type="checkbox"/>	10 bhamashah	int(10)			No	None				Change  Drop  More
<input type="checkbox"/>	11 aadhar_no	text	latin1_swedish_ci		No	None				Change  Drop  More
<input type="checkbox"/>	12 gender	text	latin1_swedish_ci		No	None				Change  Drop  More
<input type="checkbox"/>	13 category	text	latin1_swedish_ci		No	None				Change  Drop  More
<input type="checkbox"/>	14 Region	text	latin1_swedish_ci		No	None				Change  Drop  More
<input type="checkbox"/>	15 Economic_Group	text	latin1_swedish_ci		No	None				Change  Drop  More
<input type="checkbox"/>	16 Marital_Status	text	latin1_swedish_ci		No	None				Change  Drop  More
<input type="checkbox"/>	17 Orphan	text	latin1_swedish_ci		No	None				Change  Drop  More
<input type="checkbox"/>	18 Child_of_a_Widow	text	latin1_swedish_ci		No	None				Change  Drop  More
<input type="checkbox"/>	19 PWD	text	latin1_swedish_ci		No	None				Change  Drop  More
<input type="checkbox"/>	20 Minority	text	latin1_swedish_ci		No	None				Change  Drop  More
<input type="checkbox"/>	21 Family_Annual_Income	int(100)			No	None				Change  Drop  More
<input type="checkbox"/>	22 House_Apartment_No	text	latin1_swedish_ci		No	None				Change  Drop  More
<input type="checkbox"/>	23 Street	text	latin1_swedish_ci		No	None				Change  Drop  More
<input type="checkbox"/>	24 Landmark	text	latin1_swedish_ci		No	None				Change  Drop  More
<input type="checkbox"/>	25 Village	text	latin1_swedish_ci		No	None				Change  Drop  More
	Console	district	text	latin1_swedish_ci	No	None				Change  Drop  More



## **5. Non-Functional Requirements**

### **5.1 Performance**

- Response Time :-

The system shall give responses in 1 second after checking the student's information.

- Capacity :-

The System must support 1000 students at a time.

- User- interface :-

The user-interface screen shall respond within 5 seconds.

- Conformity :-

The systems must confirm to the Microsoft Accessibility.

### **5.2 Security**

- Student Identification:-

The system requires the student to identify himself /herself using password and username.

- Login ID :-

Any user who uses the system shall have a Login ID and Password.

- Modification

Any modification (insert, delete, update) for the Database shall be synchronized and only by the admin in the portal.

- Admins' Rights :-

Admin shall be able to view and modify all scholarship amendments in SPS.

### **5.3 Reliability**

How general the form generation language is Simplicity vs. functionality of the form language speeds up form development but does not limit functional.

#### **5.4 Availability**

The system shall be available all the time.

#### **5.5 Software Quality**

Good quality of the framework produces robust, bug free software which contains all necessary requirements Customer satisfaction.

#### **5.6 Reliability**

Is part of the code going to be used elsewhere produces simple and independent code modules that can be reused.

#### **5.7 Maintainability**

- Back Up

The system shall provide the capability to back-up the Data.

- Errors

The system shall keep a log of all the errors.

#### **5.8 Safety**

Humans are error-prone, but the negative effects of common errors should be limited. E.g., users should realize that a given command will delete data, and be asked to confirm their intent or have the option to undo.