

**(BCSP-064)**  
**Project Synopsis**  
**Of**  
**BACHELOR OF COMPUTER APPLICATION (BCA)**  
**On**

**GLANCE YOUR SKILL**

**Submitted By:**

**RAVINDRA SINGH**  
**ENROLMENT NO: 175232258**

Address – K-II- 487, Sangam Vihar, New Delhi -110080

**Under Guidance**  
**Of**

Mr. Rakesh Singh Bisht

**Submitted To:-**

**SCHOOL OF COMPUTER AND INFORMATION SCIENCES**  
**Indira Gandhi National Open University**  
**Maidan Garhi**  
**New Delhi – 110068.**

# Synopsis

# Glance Your Skill

(Showcase your skills to the world)

**“A project that provide an online platform for the user’s to showcase their talent, creativity, and Ideas.”**

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# Synopsis

# Glance Your Skill

(Showcase your skills to the world)

# **INTRODUCTION**

“**GLANCE YOUR SKILL**” is a web-based online platform. Glance Your Skill is a self-promotion online platform. The intention of this project is providing an online platform to the user for showing their creativity, talent and share it on their resume and social media. By creating a profile on this platform users can show their several skills & concept (idea) by sharing the link of their profile page which lists all the projects added by the user.

This project is developed to provide multiple services to the users. There are different services providing using this project for the Users such as Upload project (with Images, videos, content) and Share profile listing all project and even can share particular project link and also user can share their social media handle. Anyone can use these services by just creating the account of “Glance Your Skill”. The project starts with the very first module of Login where the only authorized user is permitted to enter inside and he/she has full authority to access functions according to their role, there are two types of users- User and Admin. The first user type “User” can upload projects, like and comment on other user’s projects and profile section of users contains user’s project, social media links and the second type user “Admin” has full access to the site. In the second module of Signup, the users registered with the site for getting the services provided by site. In the third module that is project, user can upload their creativity such as designs, animations, logos, web development projects, mobile app development projects, science projects and other projects related info by uploading the image/videos/links of their work. The Fourth module is a like module the user can like the other user’s project. The fifth module is a comment module the users can comment on the other user’s project. Sixth module of feedback this module will be responsible for handling the feedback

given by the site users to the site owner. Anyone can give their feedback to the site owner regarding the site and about any of the services providing on site.

And finally in the last module of admin, which is one of the most important module of our project. This module is only restricted with the Admin of the site, only the Admin of site can access this module, this module is able to handle the complete site and has complete access to the site.

## **OBJECTIVES OF THE PROJECT**

This is intended to be an Internet-based Application

The primary objectives behind the development of the “**Glance Your Skill**” are as follows:

- Providing users to make their stunning profile by which they can add their creative ideas on this platform.
- Linking user’s several projects in one profile. One profile has several projects.
- Fulfill the user’s needs by which they can express their work in detail.
- Providing a great flexibility to users by providing like and comment feature which helps to user to view their performance.
- To provide better utilization of time and skills.
- Providing an efficient way to share one link for several projects.
- By using this platform user can do self-promotion.
- Due to the easy and secure accessing of site, multiple user access simultaneously.

## **PROJECT CATEGORY**

“**Glance Your Skill**” is a Web-Based Project which is developed using **Spring Boot, Hibernate** and **MySQL**. This project follows **MVC** design pattern. The synopsis work entitled “**Glance Your Skill**” comes under category “**RDBMS**” and web-based application. Hence before discussing anything about the project, a brief discussion of the related basic concept is necessary. As a software developer or as a programmer, we are expected to designing and develop every program that works correctly, efficiently and at the same time is easy to be used by any person who may or may not be well versed with the computer and its capabilities. The application programs written in any language must be such that not much effort is should be required on the part of the user to understand and use its application.

### **BASIC DATABASE CONCEPT**

A database is a collection of related information stored so that it is available to may users for different purposes. It consist of a collection of interrelated data and a set of programs sot access those data.

### **CHARACTERISTICS OF DATABASE MANAGEMENT SYSTEM**

- Provides creation of a file, addition & deletion & modification of data, creation, addition and deletion of entire files.
- Provides retrieval of data collectively or selectively by database.
- Proves storing and indexing the data stored at user’s discretion and direction.
- Provides performance of Mathematical function and manipulation of the data stored in the database to perform the desired calculation.



- Provides maintenance of data integrity and database use.
- Provides complex a tight control over data redundancy.

## **BASIC MVC CONCEPT**

The **Model-View-Controller (MVC)** is an architectural pattern that separates an application into three main logical components: the **model**, the view, and the controller. Each of these components are built to handle specific development aspects of an application. MVC is one of the most frequently used industry-standard web development framework to create scalable and extensible projects.

## **MVC Components**

### **Model**

The Model component corresponds to all the data-related logic that the user works with. This can represent either the data that is being transferred between the View and Controller components or any other business logic-related data.

### **View**

The View component is used for all the UI logic of the application. For example, the Customer view will include all the UI components such as text boxes, dropdowns, etc. that the final user interacts with.

### **Controller**

Controllers act as an interface between Model and View components to process all the business logic and incoming requests, manipulate data using the Model component and interact with the Views to render the final output.

# **TOOLS/PLATFORM, HARDWARE, AND SOFTWARE REQUIREMENT SPECIFICATION**

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## **Tools/Platform**

Project is developed using **Spring Boot** Framework with **Hibernate** and **MySQL** for storing data.

## **Hardware requirement Specification**

The hardwares which was required for developing the application is as under:

Altogether a Computer with the following components:

- ❑ Intel I5 1.6 GHz or above Processor
- ❑ 4 GB Memory (RAM) or above
- ❑ Hard Disk 500 GB
- ❑ Color Monitor
- ❑ Keyboard
- ❑ Mouse
- ❑ Printer

# Software requirement Specification

The software which was required for developing the application is as under:

- |                                  |    |                        |
|----------------------------------|----|------------------------|
| ❑ Operating System               | :- | Microsoft Windows 10   |
| ❑ Front End                      | :- | JSP                    |
| ❑ Back End                       | :- | MYSQL                  |
| ❑ Framework                      | :- | Spring Boot, Hibernate |
| ❑ Server                         | :- | Apache Tomcat Server   |
| ❑ Client-side Scripting Language | :- | JavaScript, JQuery     |
| ❑ Markup Language                | :- | HTML                   |
| ❑ Style Sheet Language           | :- | CSS                    |
| ❑ Documentation                  | :- | Microsoft office 2013  |

# Java Technology

Initially the language was called as “oak” but it was renamed as “Java” in 1995. The primary motivation of this language was the need for a platform-independent (i.e., architecture neutral) language that could be used to create software to be embedded in various consumer electronic devices.

- Java is a programmer's language.
- Java is cohesive and consistent.
- Except for those constraints imposed by the Internet environment, Java gives the programmer, full control.
- Java is to Internet programming where C was to system programming.

## **Java Server Pages (JSP)**

Java Server Pages is a simple, yet powerful technology for creating and maintaining dynamic-content web pages. Based on the Java programming language, Java Server Pages offers proven portability, open standards, and mature re-usable component model.

### **Features of JSP**

- They are easy to maintain.
- No recompilation or redeployment is required.
- JSP has access to entire API of JAVA.
- JSP are an extended version of Servlet.
- It is used for creating web application.

## **Spring Boot Framework**

Spring Boot is an open-source Java-based framework used to create a micro Service. By using Spring Boot we can build web-based application which follow MVC Pattern. Spring Boot is a microservice-based framework and making a production-ready application in it takes very less time.

### **Features of Spring Boot**

1. Create of Quick Application so that, instead of manage single big web application we divide them individually into different microservices which have their own scope & capability.
2. Comes with Default Spring Starters, which come with some default Spring configuration dependency (like Spring Core, Web-MVC, Jackson, Tomcat, Validation, Data Binding, Logging).

3. **Dependency Injection:** This feature of the Spring Framework allows to develop loosely coupled applications. Therefore, the unit testing of these loosely coupled applications becomes easier.

## **Advantages**

Spring Boot offers the following advantages to its developers –

- Easy to understand and develop spring applications.
- Increases productivity.
- In Spring Boot, everything is auto configured; no manual configurations are needed.
- It offers annotation-based spring application.
- Good Integration with other frameworks. Like Hibernate, ORM, Junit.

## **Hibernate Framework**

Hibernate is a framework which provides some abstraction layer, meaning that the programmer does not have to worry about the implementations, Hibernate does the implementations for you internally like Establishing a connection with the database, writing query to perform CRUD operations etc.

It is a java framework which is used to develop persistence logic. Persistence logic means to store and process the data for long use. More precisely Hibernate is an open-source, non-invasive, light-weight java ORM (Object-relational mapping) framework to develop objects which are independent of the database software and make independent persistence logic in all JAVA, JEE.

### **Functionalities supported by Hibernate framework**

- Hibernate framework support Auto DDL operations. In JDBC manually we have to create table and declare the data-type for each and every column.

But Hibernate can do DDL operations for you internally like creation of table, drop a table, alter a table etc.

- Hibernate framework is independent of Database because it supports HQL (Hibernate Query Language) which is not specific to any database, whereas JDBC is database dependent.
- Hibernate is an ORM tool means it support Object relational mapping. Whereas JDBC is not object oriented moreover we are dealing with values means primitive data.

## **BACK END TOOL: MYSQL**

### **MYSQL**

MySQL is an open-source Relational Database Management System. MySQL is a very fast reliable and flexible Database Management System. It provides very high performance and it is a multi-threaded and multi-user Relational Database management system.

MySQL is one of the most popular relational database Management System on the web. The MySQL can run on Unix, window, and Mac OS. MySQL is used for internet applications as it provides good speed and is very secure. MySQL was developed to manage large volumes of data at very high speed to overcome the problems of existing solutions. MySQL can be used for verity of applications but it is mostly used for the web applications on the internet.

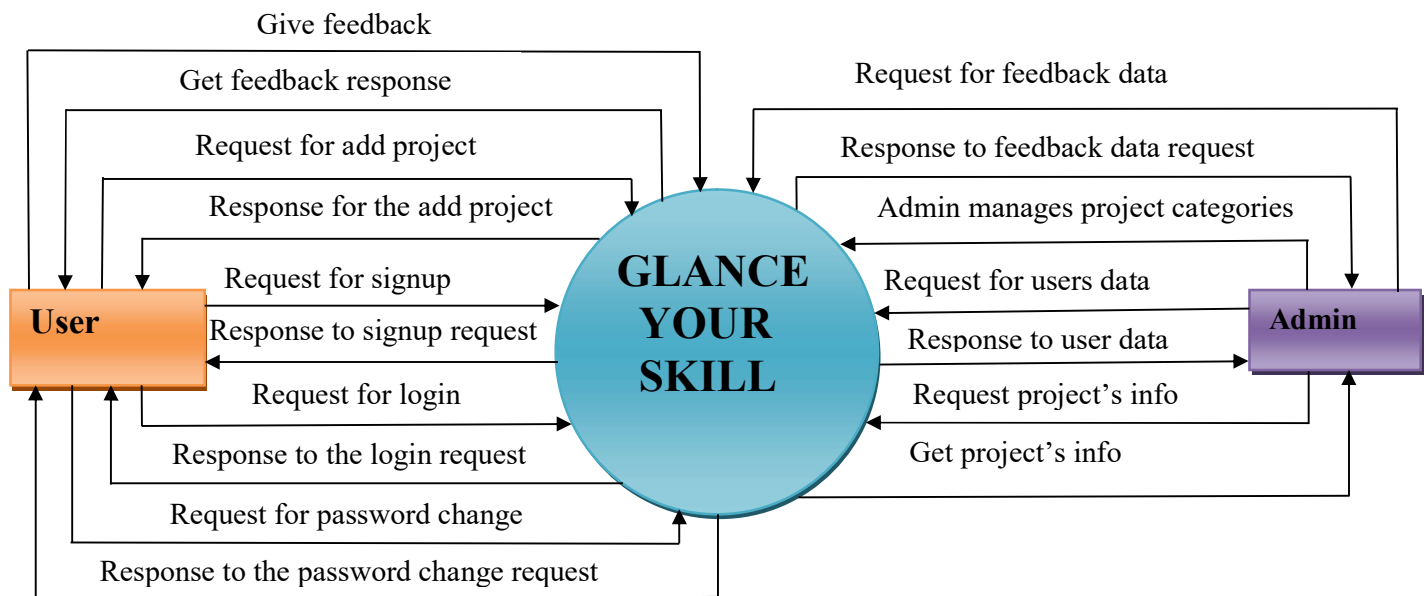
### **MYSQL FEATURES:**

1. It is very fast and reliable for any type of application.
2. MySQL is a very lightweight application.
3. MySQL has a wide user base.
4. It is a very fast thread-based memory allocation system.

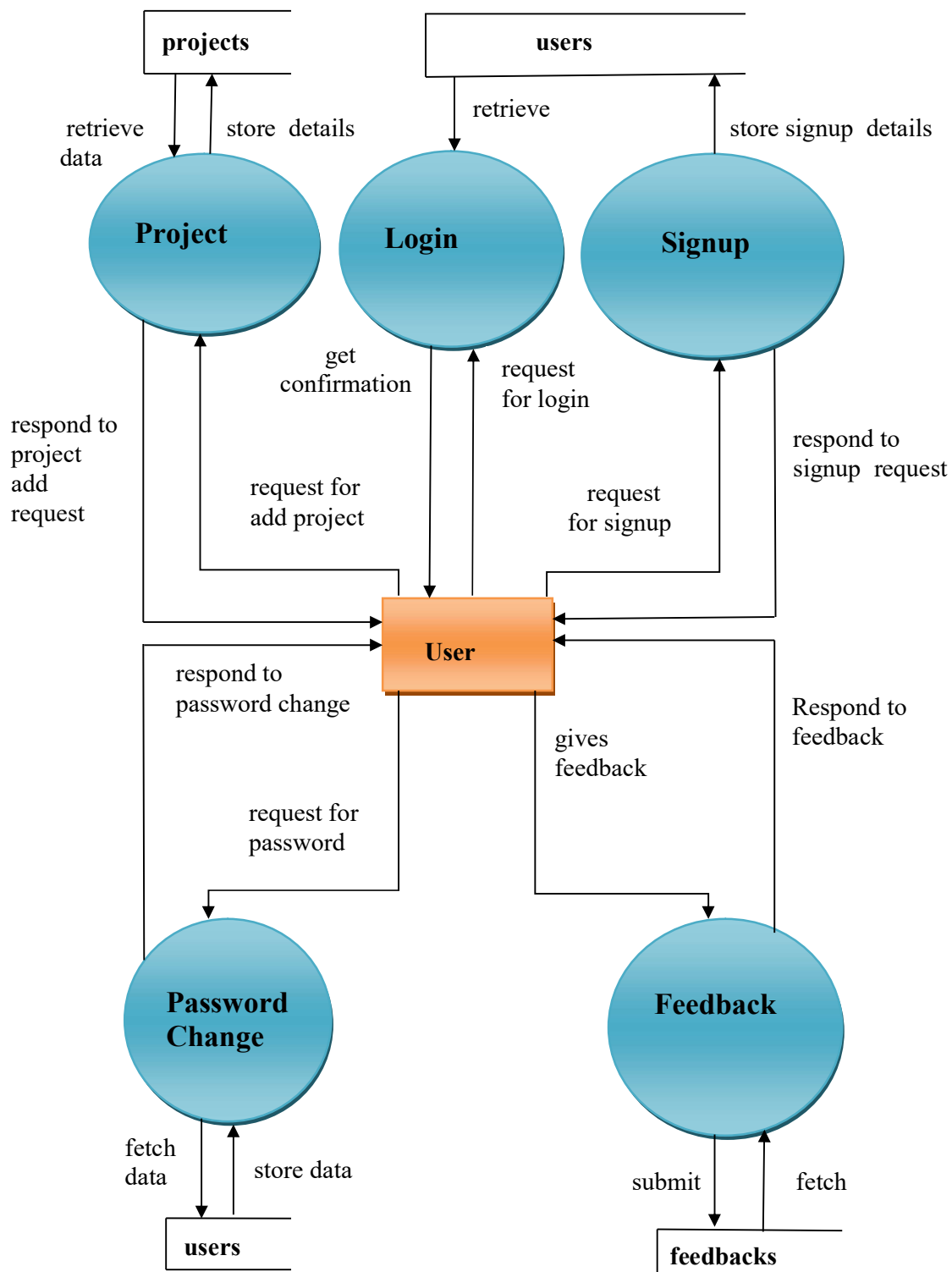
# SYSTEM ANALYSIS

## DATA FLOW DIAGRAM (DFD)

### CONTEXT (0) LEVEL DFD

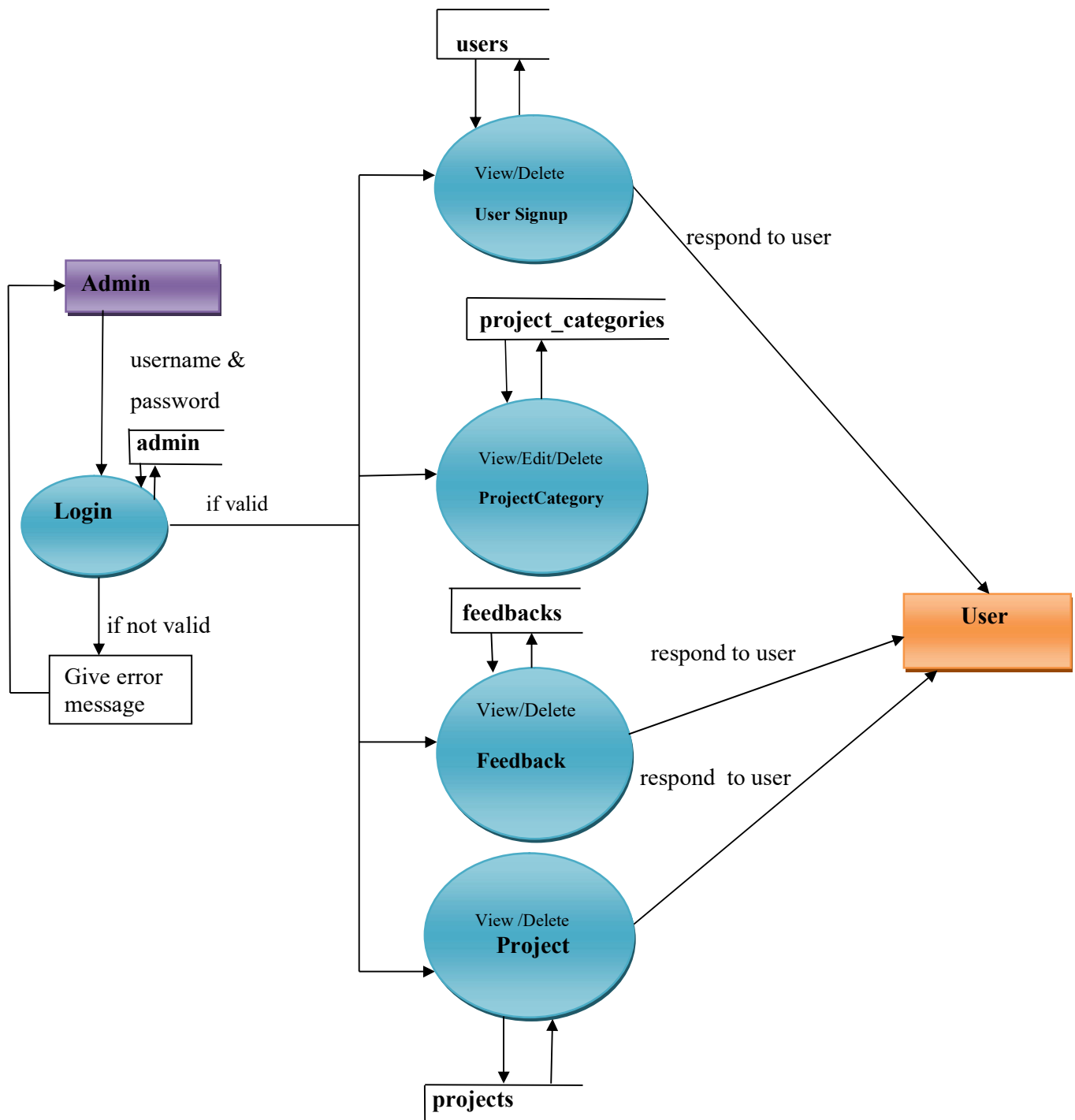


## FIRST LEVEL DFD FOR USER



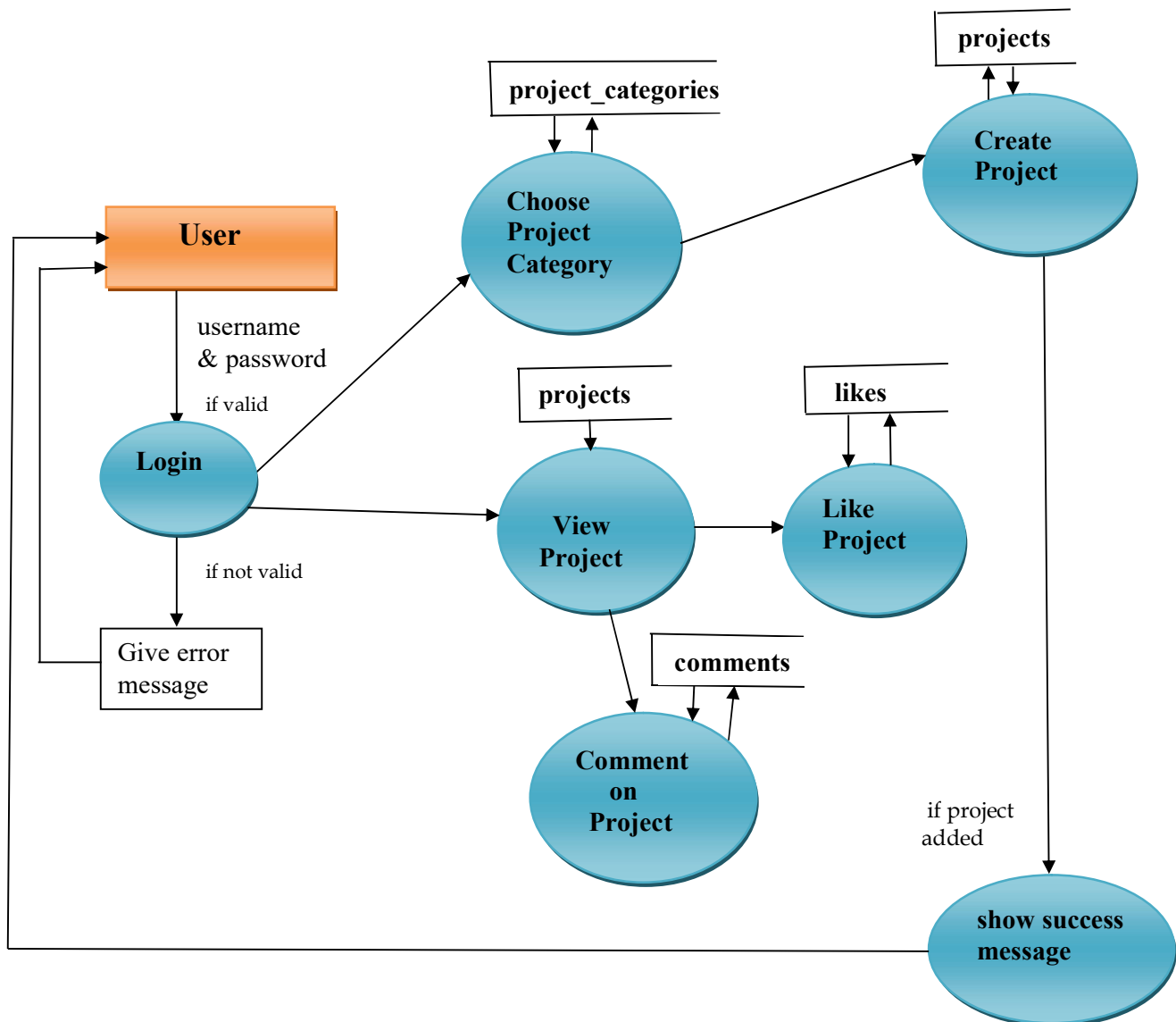


## FIRST LEVEL DFD FOR ADMIN

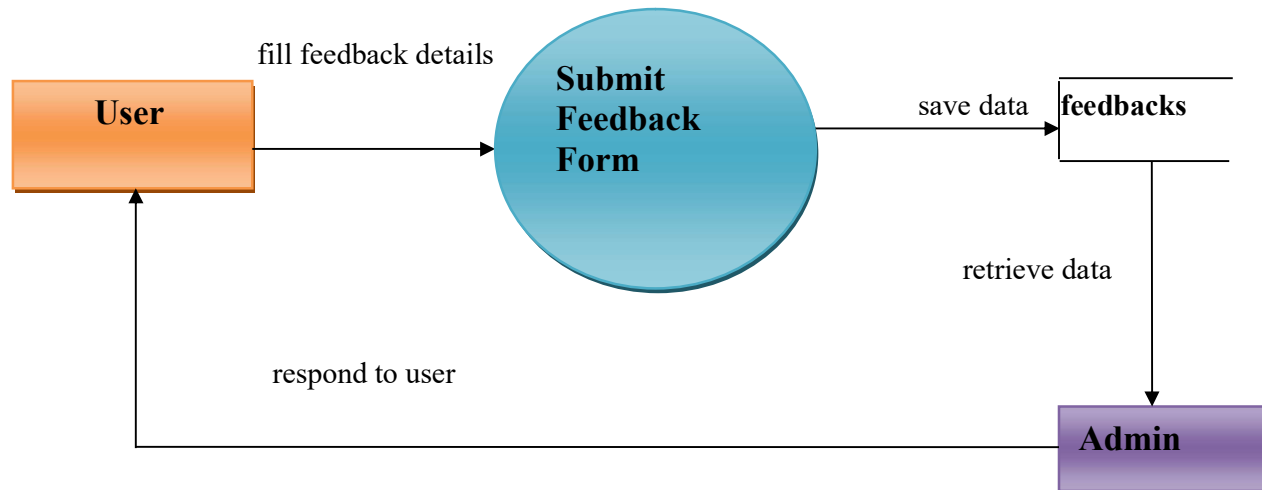


## SECOND LEVEL DFD'S

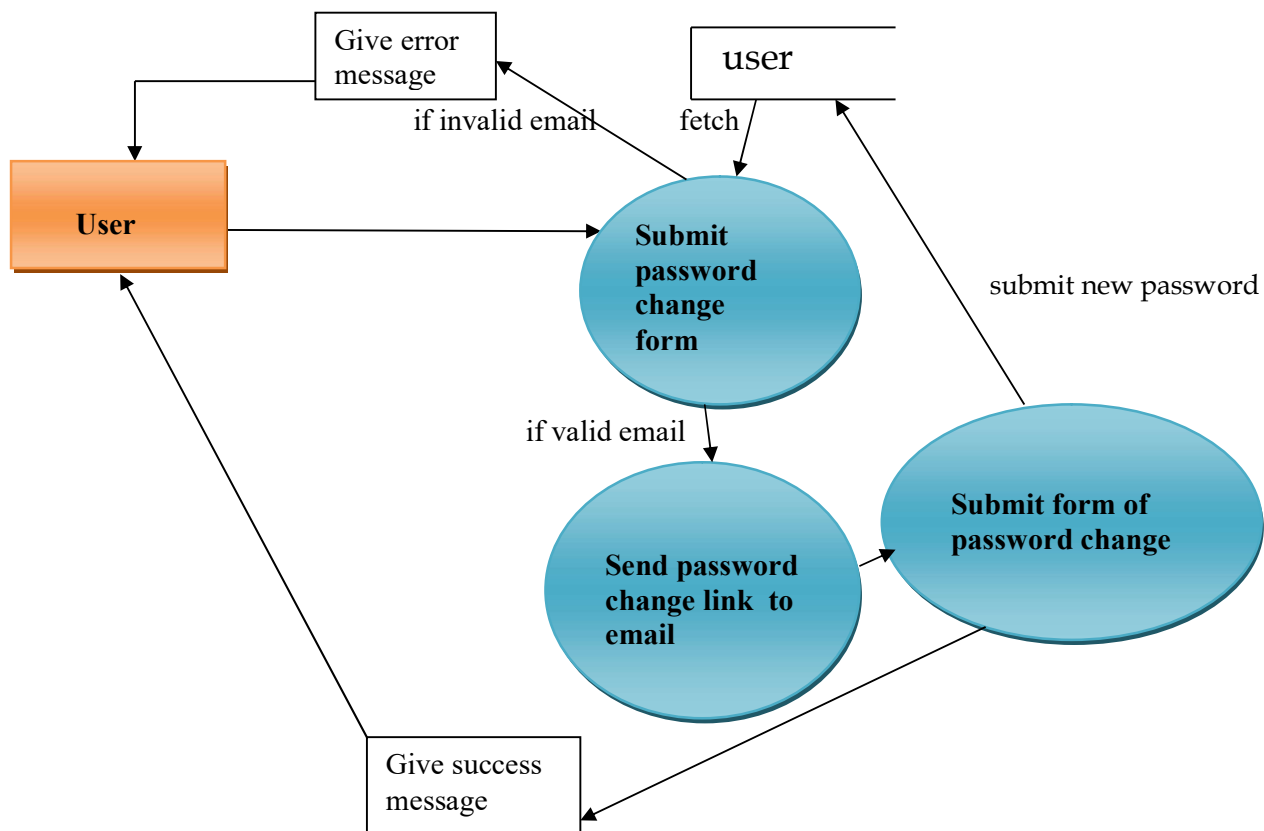
### DFD FOR PROJECT



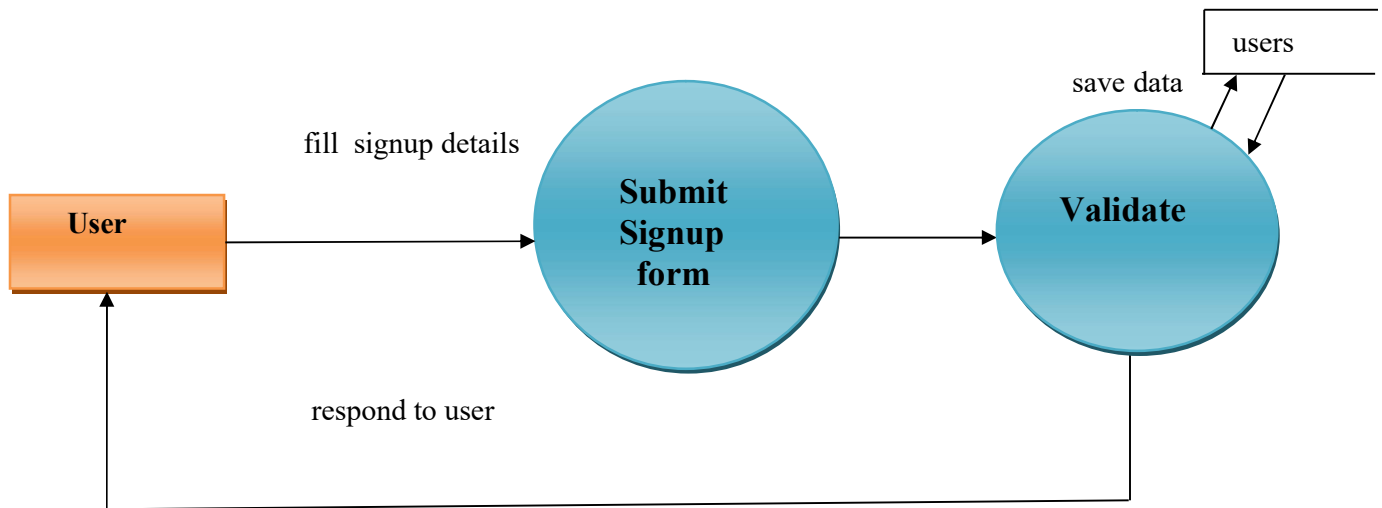
## DFD FOR FEEDBACK



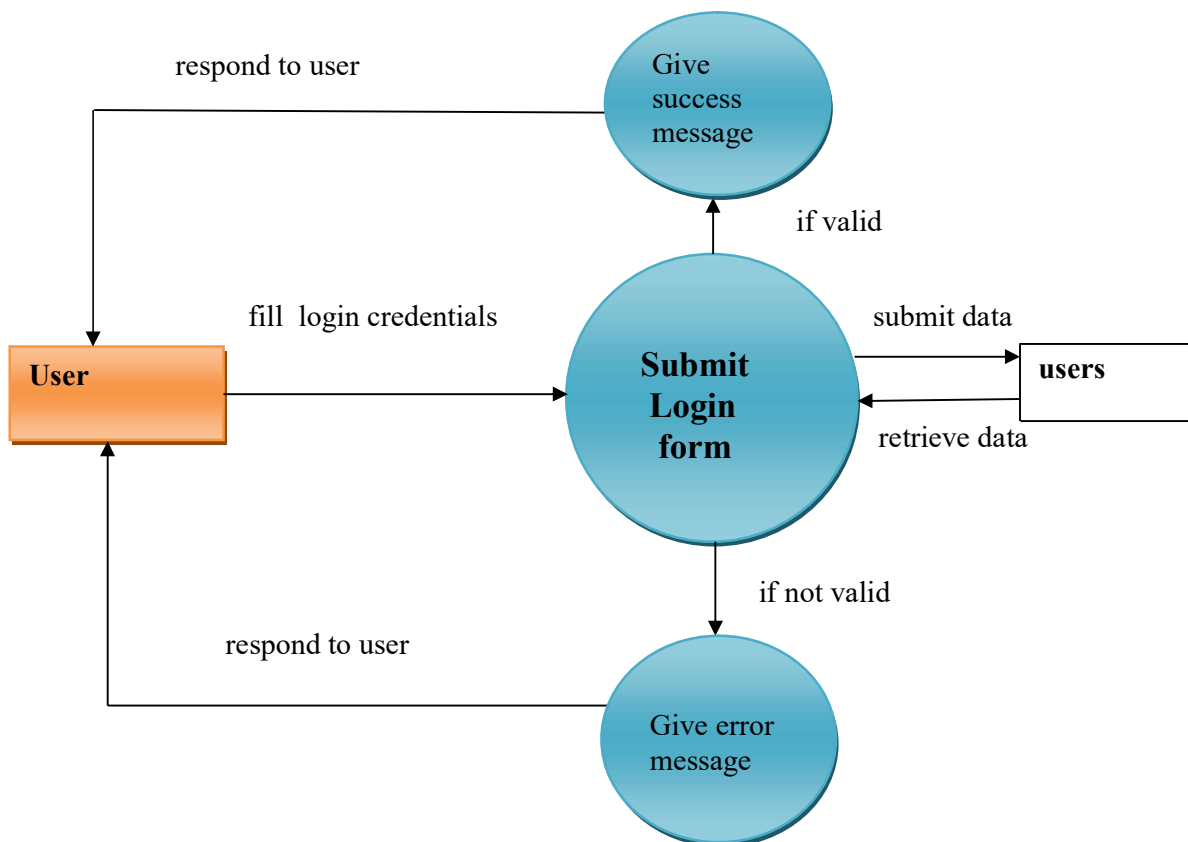
## DFD FOR PASSWORD CHANGE



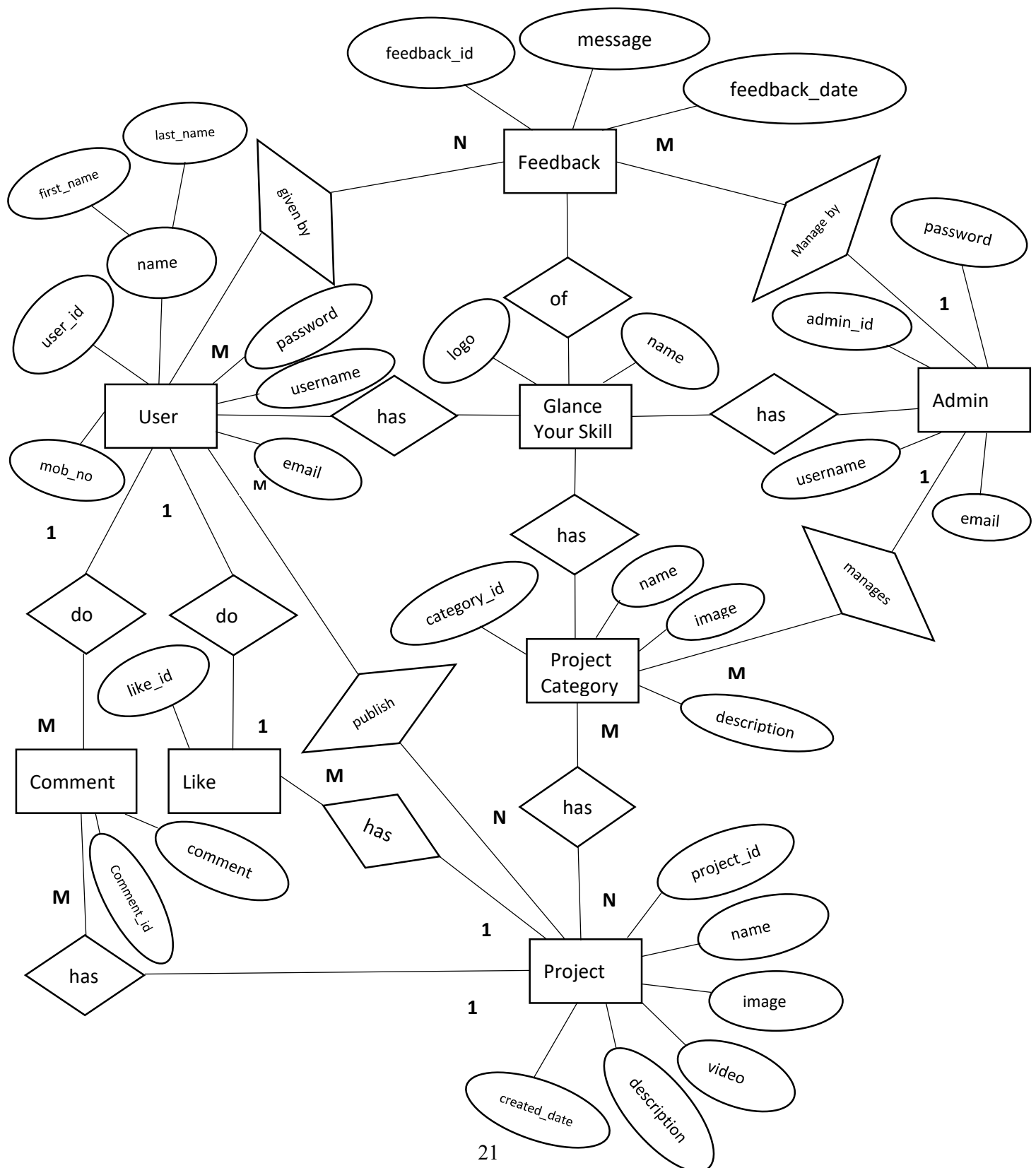
## DFD FOR USER SIGN UP



## DFD FOR LOGIN



# ENTITY RELATIONSHIP DIAGRAM



# **SYSTEM DESIGN**

## **VARIOUS MODULES AND THEIR DESCRIPTION**

“GLANCE YOUR SKILL” comprises of the following Core modules. Brief description of each and every module is given below:

➤ **LOGIN MODULE**

This module checks the authenticity of the user and provides the permissions to the users according to their role. There are 2 main users are in our site, first is Admin, who has complete control over the site and he has full permissions, the second user is site user, who can add projects to their own profile and also can like and comment on other user's profile.

➤ **SIGNUP MODULE**

This module will serve the purpose of signup of the user, this module manage the signup process of our site. The signup module is for users only.

➤ **PROJECT MODULE**

This module will serve the purpose of providing a way to use to upload their projects under different categories. User can upload project with images, videos and detail description of the project. Users can share the project's link on their social media and resume.

➤ **LIKE MODULE**

This module gives the capability to users to like the other user's projects. This will play a vital role as like is a sign of popularity for the project owner.

➤ **COMMENTS MODULE**

By using this module user can comments on the project. It will store comments of the project commented by the users. The intention of this module is to provide the user's opinion about the project.

➤ **FEEDBACK MODULE**

This module will be responsible for handling the feedback given by the site users to the site owner. Anyone can give their feedback to the site owner regarding the site and about any of the services providing in the site.

➤ **ADMIN MODULE**

This module of admin, which is one of the most important module of our project, and it is one of the most vast module, this module handles the complete process of managing the projects uploaded by users, categories of projects, feedbacks given by users and the users of the site. This module is only restricted with the Admin of "Glance Your Skill". Only the Admin of "Glance Your Skill" can access this module. Admin is able to handle the complete site and have complete access to the site.

## DATA STRUCTURE OF TABLES

### 1. Table Name:- users

Field Name	Data Type	Constraints	Description
id	Int(11)	Primary Key	User id
username	varchar(50)	Not Null, Unique	Username of user
firstname	varchar(50)	Not Null	User's First name
lastname	varchar(50)	Not Null	User's last name
password	varchar(50)	Not Null	User's password
email	varchar(50)	Not Null, Unique	User email
mobile_no	varchar(12)	Not Null	User's mobile no
profession	varchar(20)	Null	Profession of the User
Bio	varchar(255)	Null	Bio of User
profile_picture	varchar(50)	Null	Profile Picture of the User.
reset_token	varchar(50)	Null	Reset token for password reset
created_date	Datetime	Not Null	Created date
updated_date	Datetime	Not Null	Updated date

### 2. Table Name:- admin

Field Name	Data Type	Constraints	Description
Id	int(11)	Primary Key	User id
name	varchar(50)	Not Null	Admin Name
username	varchar(50)	Not Null, Unique	User name
password	varchar(50)	Not Null	Password
email	varchar(50)	Not Null, Unique	User email



created_date	Datetime	Not Null	Created date
updated_date	Datetime	Null	Updated date

### 3. Table Name:- project\_categories

Field Name	Data Type	Constraints	Description
id	int(11)	Primary Key	Category id
name	varchar(100)	Not Null	Category name
description	varchar(255)	Not Null	Category Description
image	varchar(255)	Not Null	Category Image
created_date	Datetime	Not Null	Created date
updated_date	Datetime	Null	Updated date

### 4. Table Name:- projects

Field Name	Data Type	Constraints	Description
Id	int(11)	Primary Key	Project id
user_id	Int(11)	Foreign key	User id from users table
category_id	Int(11)	Foreign key	Category id from project_category table
project_name	varchar(50)	Not Null	Project Name
short_desc	varchar(255)	Not Null	Project Short Description
description	Longtext	Not Null	Project description
image	varchar(50)	Not Null	Project Screenshot
video	varchar(50)	Null	Project Video
external_link	varchar(50)	Null	External Stuff
created_date	Datetime	Not Null	Created date
updated_date	Datetime	Null	Updated date

## 5. Table Name:- project\_likes

Field Name	Data Type	Constraints	Description
id	int(11)	Primary Key	Like id
user_id	Int(11)	Foreign key	User id from users table
project_id	Int(11)	Foreign key	Project id from projects table
created_date	datetime	Not Null	Created date
updated_date	datetime	Null	Updated date

## 6. Table Name:- project\_comments

Field Name	Data Type	Constraints	Description
id	int(11)	Primary Key	Comment id
user_id	Int(11)	Foreign key	User id from users table
project_id	Int(11)	Foreign key	Project id from projects table
comment	varchar(255)	Not Null	Comment
created_date	datetime	Not Null	Created date
updated_date	datetime	Null	Updated date

## 7. Table Name:- feedbacks

Field Name	Data Type	Constraints	Description
id	int(11)	Primary Key	Feedback id
user_id	Int(11)	Null	User id from users table
fullname	varchar(255)	Not Null	User's full Name
mobile_no	varchar(12)	Not Null	User Mobile no
email	varchar(255)	Not Null	Email id
message	longtext	Not Null	Message
contact_date	datetime	Not Null	Contact date

## **TESTING TO BE USED**

In order to ensure that the system works perfectly, it has to be rigorously tested. The testing procedure would be used to check all the features developed for the bus service provider system work efficiently, the test procedure would also be used to identify any hidden errors or deficiencies the system may possess.

### **Test Strategies**

There is a number of testing strategies that can be utilized to conduct adequate testing processes, the black box and white box testing methods are the most popular method to test software developed systems

### **Black Box Testing**

This testing strategy which is also known as functional testing is used by a tester who has no knowledge of the internal structure of the system. The tester does not test the programming code itself but instead performs the test based on previously. This form of testing is usually conducted by the end user, who would enter an input in to the system and check for an expected output. The advantage of using black box testing is that the test can be done by the users of the system, without them needing to have prior knowledge of the system's code

### **White Box Testing**

This testing strategy which is also known as glass box or structural testing is used to test the internal logic and structure of the programming code used to develop the system. The tester would need to have unequivocal knowledge of the coding used for developing the system, in order to uncover any malfunctioning code. In order to test system adequately both testing strategies have to be utilized.

## **Levels of Testing:**

Systems are not designed as entire systems nor are they tested as single systems. The analyst must perform both unit and system testing.

## **Unit Testing:**

In unit testing the analyst tests the programs making up a system. For this reason, unit testing is sometimes called program testing. Unit testing gives stress on the modules independently of one another, to find errors. This helps the tester in detecting errors in coding and logic that are contained within that module alone. For each, it provides the ability to enter, modify or retrieve data and respond to different types of inquiries or print reports. The test cases needed for unit testing should exercise each condition and option.

## **System Testing:**

The important and essential part of the system development phase, after designing and developing the software is system testing. We cannot say that every program or system design is perfect and because of lack of communication between the user and the designer, some error is there in the software development. System testing makes a logical assumption that if all the parts of the system are correct, the goal will be successfully activated. Another reason for system testing is its utility as a user-oriented vehicle before implementation.

**System testing consists of the following five steps:**

- Program testing
- String testing
- System testing
- System documentation
- User acceptance testing

## **REPORTS**

There are two types of reports generated by our system which are as follows:

**USER SIGNUP REPORT** - This report displays the information about the user registered in the 'GLANCE YOUR SKILL' site.

**FEEDBACK REPORT** - This report displays the information about the users given feedback to the admin in the 'GLANCE YOUR SKILL' site.

## **FUTURE SCOPE OF APPLICATION**

This site has vast scope, it will be used by the professionals for showing their skills on the internet. Using this site users can do self-promotion by showing their work. Users can easily explain their project in detail, past work and can share on their social media profile and resume.

This project is designed and developed in such a manner that it provides maximum efficiency & speed and has a vast scope of further development. The number of modules can be added without many modifications in the database and with minimum modifications in its code. This application fits into the current scenario, which is the information age.

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