Skill Gap Assessment

In 5th Year of (M.C.A. Integrated)

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Developed By:

Abhinav Shah (Enr.No:135170686032)

External Guide: Mr. Nitin Shah

Internal Guide: Dr. Jignesh Doshi

L.J. INSTITUTE OF COMPUTER APPLICATION

L.J. INSTITUTE OF COMPUTER APPLICATIONS

Near Nagdev Kalyan Mandir, Near Sanand Cross Roads,

Serkhej-Gandhinagr Highway Ahmedabad - 382481

Ph. No. : 079 29296364

CERTIFICATE

Enrollment No: _____

This is to certify that Mr./Ms._____

studying in 5 years Integrated - Master of Computer Applications, Semester X,

Roll No_____ has satisfactorily completed his/her Project Titled

_____ under the supervision

of

Internal Guide Name   **Signature**

Date of Submission:

Director

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1. Introduction

- With a rapid growth in the field of Information Technology it is becoming necessary for an organization to cope up with the upcoming technologies in the market.

- Many multinational companies and organizations are looking for an employees who can cope with the upcoming technology.

- Day by day the employees are getting hired by an organization or companies. Every employee have some good skills in their particular subject or field.

- But according to the current situation in many organizations or multinational companies the major problem which is being faced is the skill gap.

- So to avoid such problem we have developed a system which will help the organizations and companies to find an employee according to their need.

- We have developed a system **"Skill Gap Assessment"**.

- **"Skill Gap Assessment"** provides the organization and multinational companies to evaluate employees according to their need.

- With the help of this tool it will be helpful to the organizations to manage their employee skills.

1.1 Need for the New System

➢ The main purpose of this system is to assess and measure an individual's skill in an organizations.

➢ When used by an organizations, it can support employee's performance improvement plan to identify the gaps and define action plans for resolution.

➢ The system is developed keeping in mind to do end to end skill management for an organization.

➢ The **"Skill Gap Assessment"** can be used in conjunction with an Organizational Assessment to help assess the current state of Organizational Project Management Maturity.

➢ A **"Skill Gap Assessment"** is a tool that can provide insight on how and where an employee can improve their knowledge and skills.

1.2 Objective of the New System

- The main objective of the system to manage skills of an employee in an organization or a multinational company.
- The system helps the organization to refine and define the skills now and in the future.
- The system also helps the employees know what critical skills they will need to grow.
- It also helps the organization in reducing efforts for recruiting employees for a specific skills.
- System generates different variety of reports so that the organizations can easily manage employee skills.

1.3 Problem Definition

➤ The Skill Gap Assessment is used to provide a brief overview of employee's skills to promote shared understanding of it before a more detailed plan.

➤ The purpose of this system is to do end to end skill management for the organization.

➤ The goal of this project is to use latest open source technologies and develop following modules.

1. Skill Assessment
2. Executive Dashboard

1.4 Scope of the Project and Core Components

➤ **Scope**

The main scope of **"Skill Gap Assessment"** is to manage employee's skill in an organization. The system has an admin login who can add question or a set of questions for a particular skill. Each skill can be categorize into different sub categories. Each skill can have multiple questions. Each question may have a single answer or a multiple answer. Admin can assign rating (in simple term marks) for each question and each group of questions.

➢ **Core Components**

1. **Admin Panel**
   ➢ Login
   ➢ Manage Skill Category
   ➢ Manage Sub Skill Category
   ➢ Manage Questions
   ➢ Manage Marks
   ➢ View Response
   ➢ Edit Profile

2. **User Panel**
   ➢ Login
   ➢ Manage Response
   ➢ Edit Profile

1.5 Project Profile

Project Name	Skill Gap Assessment
Organization	Prazo Solutions
Project Type	Web Application
Team Member	Abhinav Shah(135170686032)
Front End	Angular 5, Php 7.0.10, Bootstrap 4.0, HTML, Css, JavaScript, JQuery
Back End	MySQL 5.7.14
Other Tools/Technology	Visual Studio Code

1.6 Advantages and Limitations of the Proposed System

- Employee's skill can be easily figured out.
- Employees can be evaluated differently for different project parameters.
- As employees are assessed from different parameters the organization can easily figure out skill gap of each employee or a group of employees.
- Reports can be generated from different perspectives.

2. Requirement Determination & Analysis

2.1 Requirement Determination

➢ Requirement of this system is collected from the head of the company and other superior executives.

2.2 Targeted Users

➢ **Admin**

    ➢ Admin can manage category, manage sub category, manage skills and can manage questions.

    ➢ Admin can generate different forms.

    ➢ Admin can view reports.

➢ **User**

    ➢ User can assess himself on the form generated by admin.
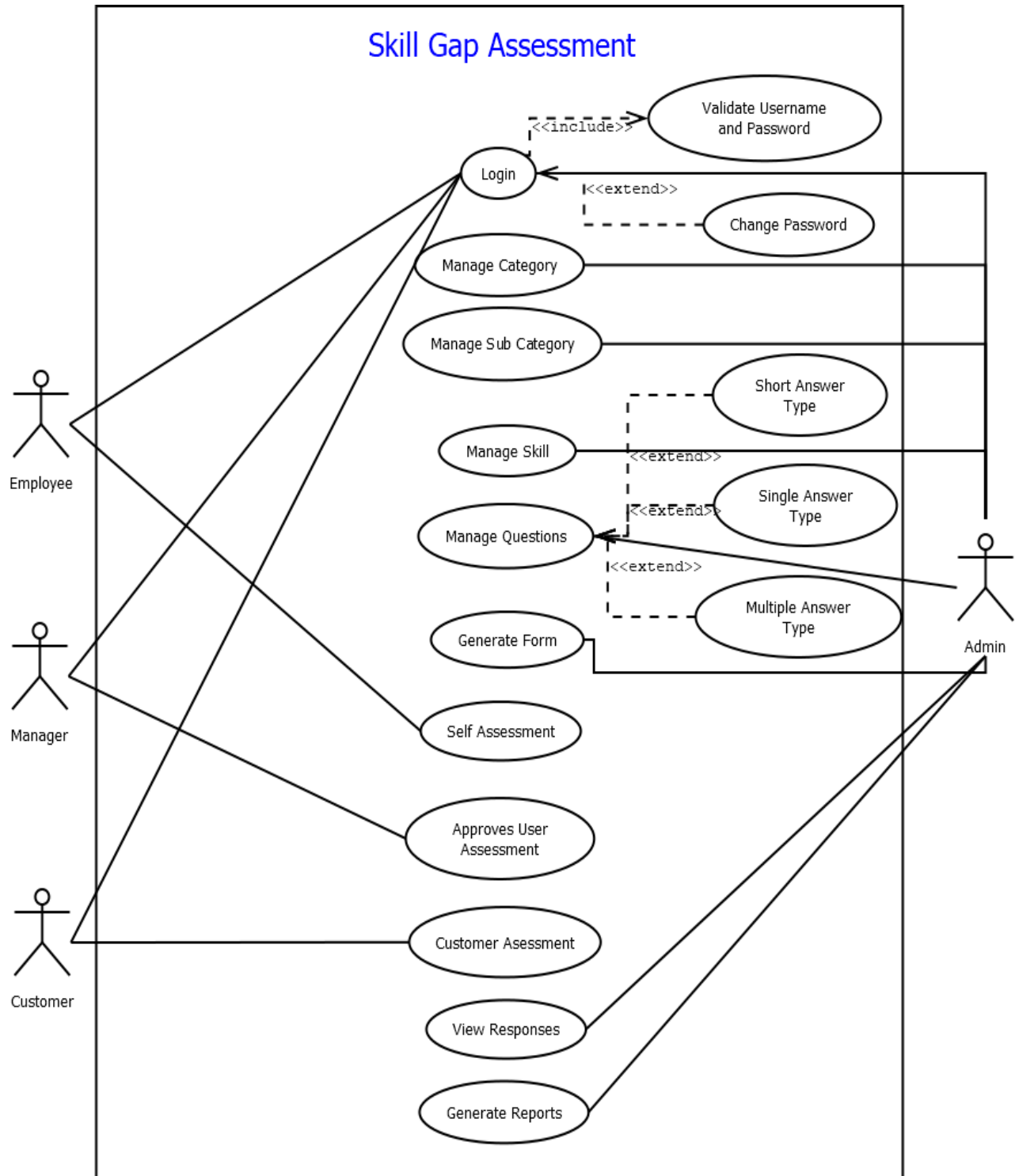
➢ **Manager**

    ➢ Manager can approve or disapprove user assessment.

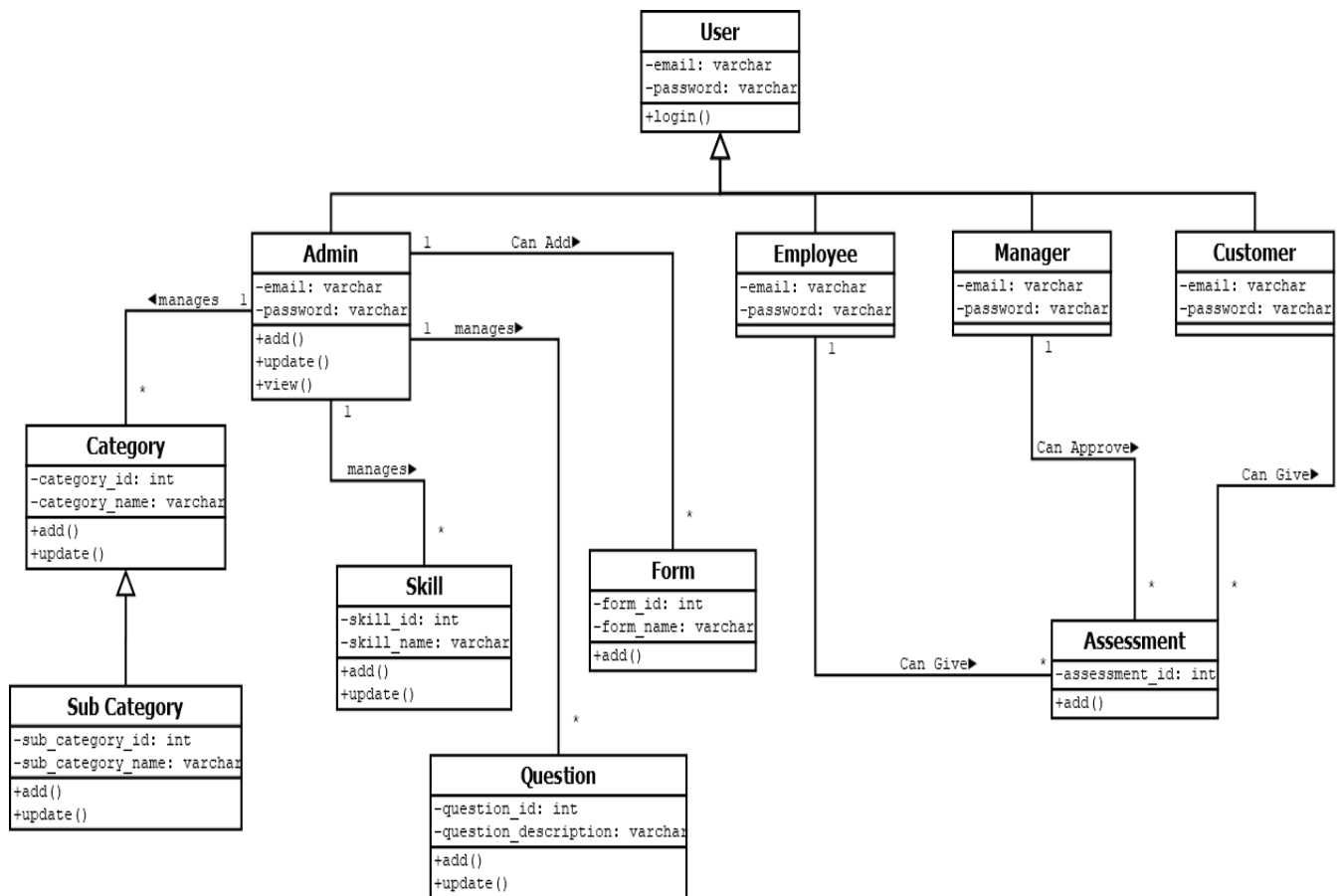   ➢ Manager can also change user assessment.

➢ **Customer**

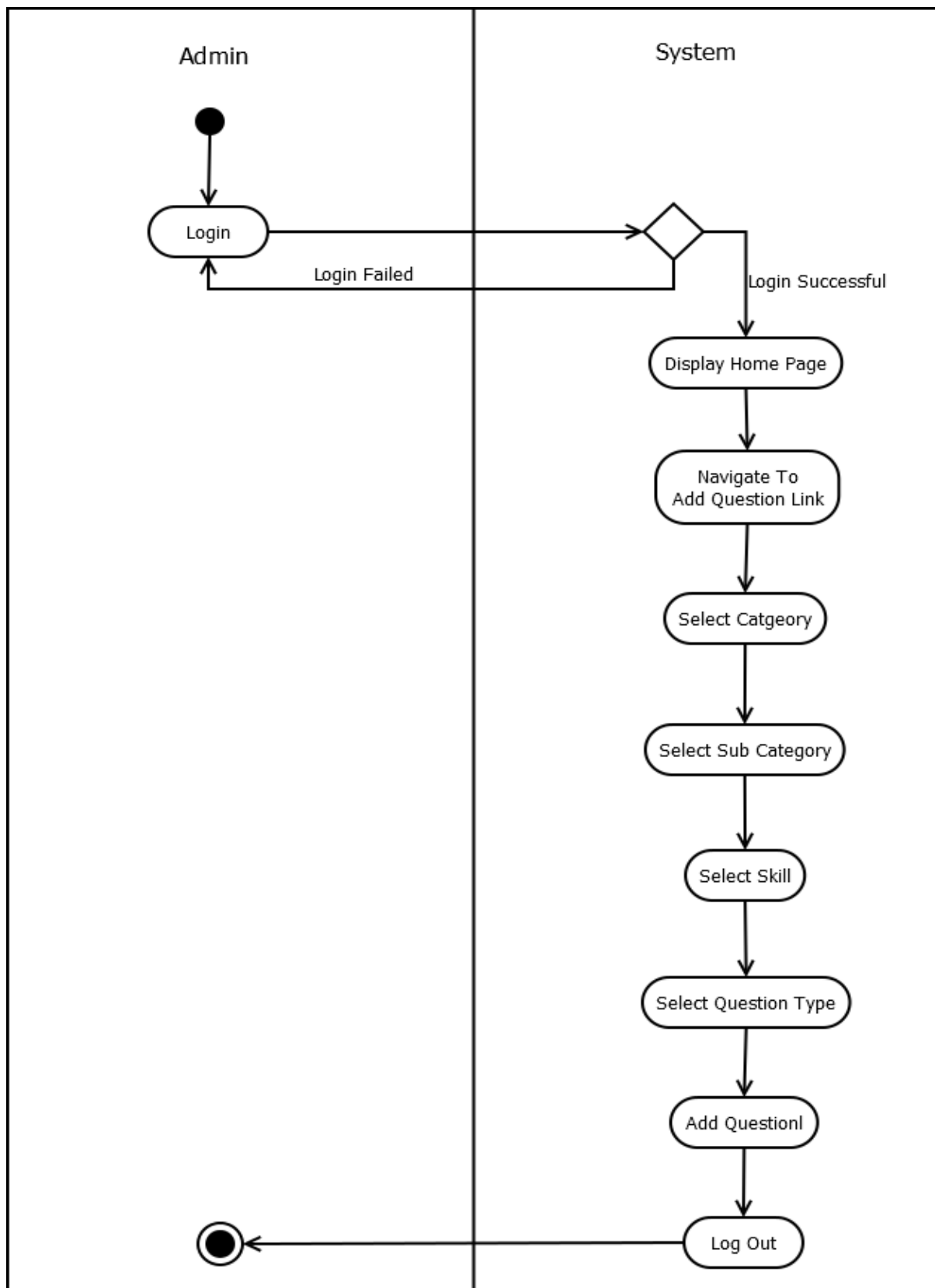   ➢ Customer can assess the project team.
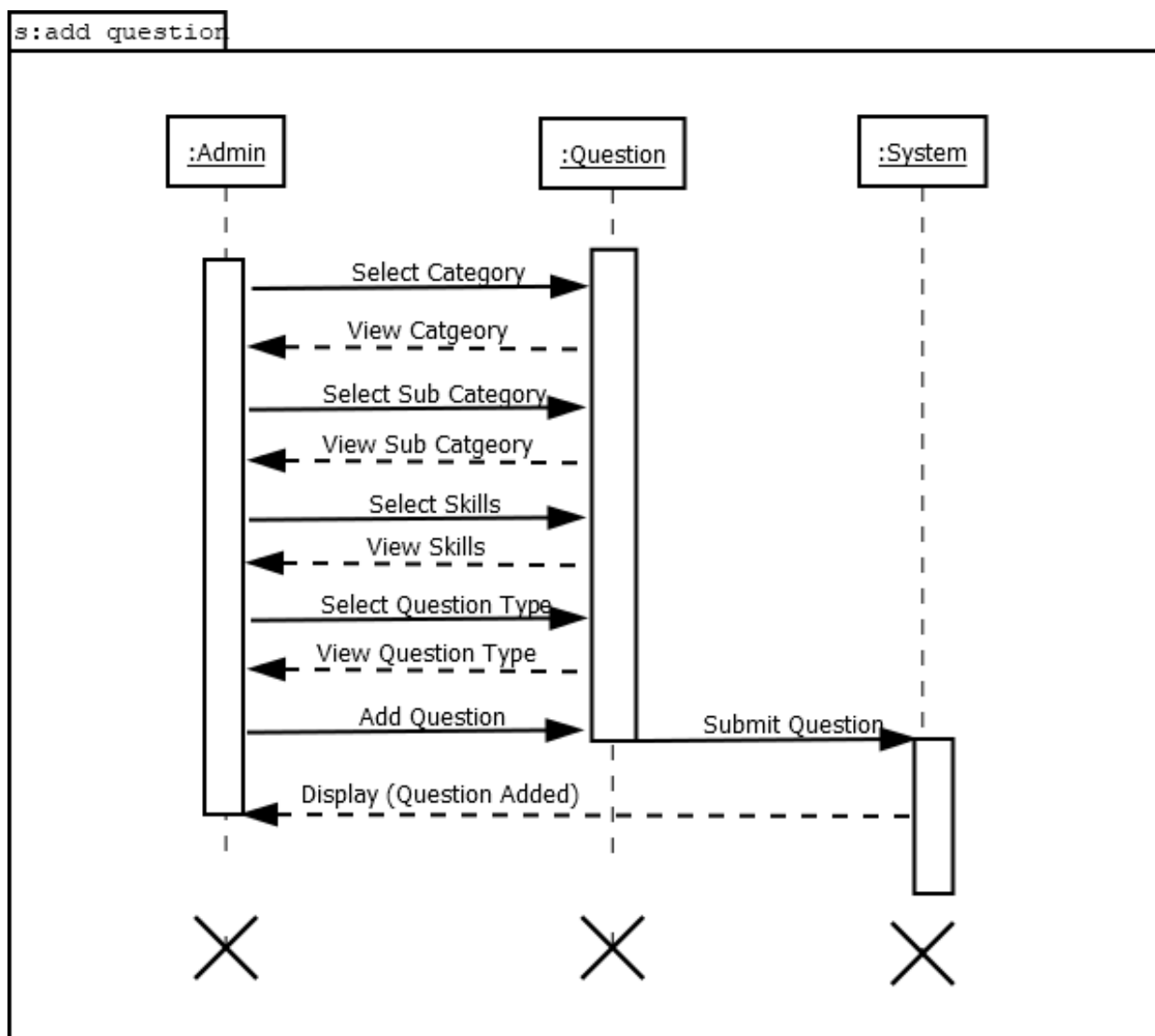
3. System Design

3.1 Use Case Diagram

Skill Gap Assessment

3.2 Class Diagram

3.3 Activity Diagram

3.4 Sequence Diagram

3.5 Data Dictionary

Table Name: user_master

Table Description: Includes the details of the user.

Field Name	Data Type	Constraint	Description	Sample Data
User_id	Int	Primary Key	User Id	1
First_name	Varchar(30)	Not null	First name	Abhinav
Middle_name	Varchar(30)	Null	Middle name	Kiran
Last_name	Varchar(30)	Not null	Last name	Shah
Gender	Enum('Male','Female')	Not null	Gender	Male
Email	Varchar(100)	Unique	Email id	abhi@gmail.com
passwd	Varchar(50)	Not null	Password	1234
Contact	Bigint	Not null	Contact no	9427021031
User_type	Enum('Admin','Employee')	Not null	User type	Admin
Employee_id	int	Null	Employee id	-

Table Name: category_master

Table Description: Includes the details of different categories.

Field Name	Data Type	Constraint	Description	Sample Data
Category_id	Int	Primary key	Category id	1
Category_description	Varchar(50)	Not null	Category description	Technical Skills

Table Name: sub_category_master

Table Description: Includes the details of different sub category.

Field Name	Data Type	Constraint	Description	Sample Data
Sub_category_id	Int	Primary key	Sub category id	1
Category_id	Int	Foreign key	Category id	1
Sub_category_decription	Varchar(50)	Not null	Sub category description	Web Technologies

Table Name: skill_master

Table Description: Includes the details of different skills of each sub category.

Field Name	Data Type	Constraint	Description	Sample Data
Skill_id	Int	Primary key	Skill id	1
Sub_category_id	Int	Foreign key	Sub category id	1
Skill_description	Varchar(50)	Not null	Skill description	Php

Table Name: question_master

Table Description: Includes the details of different questions of each skill.

Field Name	Data Type	Constraint	Description	Sample Data
Question_id	Int	Primary key	Question id	1
Skill_id	Int	Foreign key	Skill id	1
Question_type	Enum('Single Option, 'Multiple Option', 'Descriptive'	Not null	Question type	Descriptive
Question_description	Varchar(255)	Not null	Question description	What is php?
Rating	Int	Not null	Rating	10

Table Name: question_option_master

Table Description: Includes the details of different options of each question.

Field Name	Data Type	Constraint	Description	Sample Data
Question_id	Int	Primary key	Question id	1
Option_id	Int	Primary Key	Option id	1
Option_description	Varchar(50)	Not null	Option description	Option1, Option2
Correct_answer	Enum('True','False')	Not null	Correct answer	True