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قسم علوم الحاسب والمعلومات

Graduation Project (1) Report

# STUDENT SUMMER TRAINING SYSTEM

**student preparation :**

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**Under the supervision of:**

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## Abstract

Design a system based on the follow-up of students of summer training at the university through the operation of a database of companies and institutions and agencies accredited by the University for the Summer training

## Acknowledgements

I would like to thank the supervisor of this project Dr.Loai Kayed Bani Melhim, for his guidance and assistance in completing this project. I would also like to thank the project-based committee for their clear effort in helping and guiding students.

# Table of contents

# Table of figures

# Chapter 1

## 1-1 introduction

Design a system based on the follow-up of summer training students at the university by working a database of the names of companies, institutions and agencies accredited by the university in the summer training. Then, the student after registration in the system to choose the body to be trained, During which the student will write a report about the activities that he conducted during the week. This data will be updated in the student's account. The student will also be able to record his observations about the company or the organization in which he is trained. This information will be stored in the database.
As for the system administrator, the supervisor of the summer training, they can collect all the observations and information about the company in which the student is trained by collecting student feedback about these companies.

## 1-2 The importance of the project

**1- Follow-up of summer training students at the University**

**2- Collect feedback and information about the 2**

**company that trains students 3**

**3- Study the status of companies and institutions 4**

**suitable for students and study the interest to 5**

**be provided to the student 6**

## 1-3 Project goals

To provide a list of credited companies that the student can apply for summer training, the list is created by the university and been evaluated by the student, the supervisor and the committee who is responsible for summer training.
To provide a system that enable the student to create an accumulated training report, which is built every two weeks during training period.

To provide an easy method for the supervisor to track the student progress by following the built reports .

## 1-4 Research problem

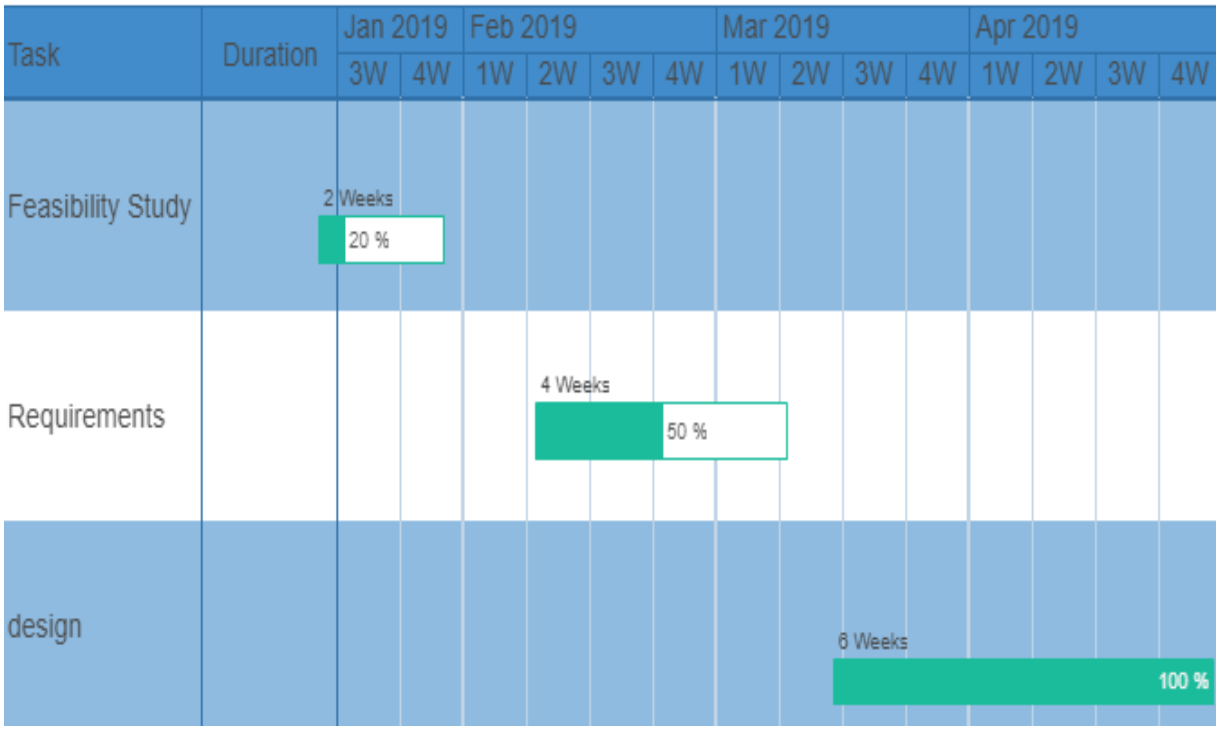
**The problem is that if the student wants to know some things about summer training, the solutions are few, some of which consume time and effort.**

**The best solution is a forum that brings together the required companies, corporate ratings and the right company choice .**

## 1-5 Questionnaire

| الأسئلة | نعم | إلى حد ما | غير مهتم | لا |
|---|---|---|---|---|
| **هل الطالب بحاجة لموقع التدريب الصيفي ؟** | 90.91% | 9.09% | 0.00% | 0.00% |
| هل سبق وان بحثت عن مواقع للتدريب الصيفي ؟ | 52.38% | 19.05% | 4.76% | 23.81% |
| هل تؤيد فكرة إنشاء موقع للتدريب صيفي ؟ | 81.82% | 13.64% | 4.55% | 0.00% |
| في حال تم إنشاء الموقع هل ستساهم فيه بشكل فعال ؟ | 50.00% | 45.45% | 4.55% | 0.00% |
| هل سيساهم الموقع بتسهيل الوصول للمعلومات والتقارير ؟ | 90.91% | 4.55% | 4.55% | 0.00% |
| هل ترى بأن الفكرة ناجحة ؟ | 81.82% | 9.09% | 4.55% | 4.55% |

## 1-6 Gantt chart



# Chapter 2

## 2-1 Introduction

One of the most important steps of establishing a system is to define the requirements and analyze them accurately so that it helps to understand and contain the system and then it is created in the best form.

## 2-2 Requirements Analysis

Requirements analysis involves frequent communication with system users to determine specific feature expectations, resolution of conflict or ambiguity in requirements as demanded by the various users or groups of users, avoidance of feature creep and documentation of all aspects of the project development process from start to finish.

### 2-2-1 Sign-Up requirements

Registration in the forum requires two types of requirements:

Important Requirements:

member name.

password .

Email Address .

Additional requirements:

Mobile number .

Address .

gender .

### 2-2-2 log in requirements

Log-in requires the user name and password

### 2-2-3 Post a topic requirements

Posting a topic in the forum requires you to log in with a trusted membership.

### 2-2-4 add a comment requirements

Adding a comment in the forum requires you to log in with a trusted membership, choose a specific company, then add a comment**.**

## 2-3 Target segment

The project targets students studying at Al Majmaah University as well as students wishing to attend university.

# Chapter 3

## 3-1 Requirement Design

Functional **:** Any requirement which specifies what the system should do.

In other words, a functional requirement will describe a particular behaviour of function of the system when certain conditions are met, for example: “Send email when a new customer signs up” or “Open a new account”.
”.

Non-functional requirements :

Any requirement which specifies how the system performs a certain function.

In other words, a non-functional requirement will describe how a system should behave and what limits there are on its functionality.

## 3-2 what is UML?

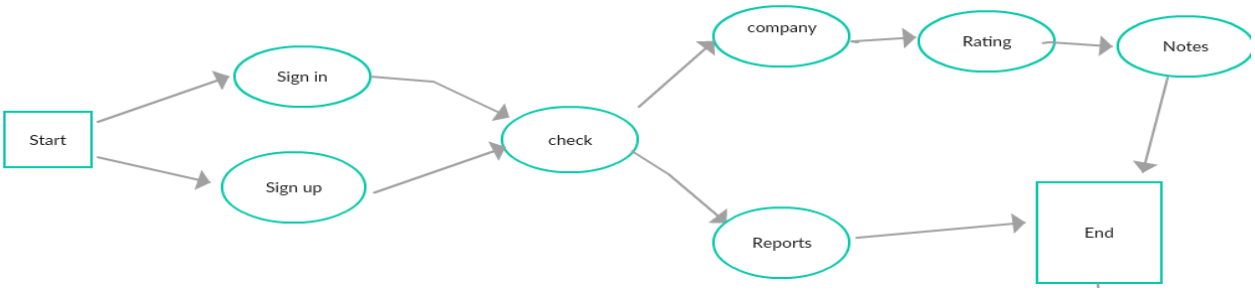
UML, short for Unified Modeling Language, is a standardized modeling language consisting of an integrated set of diagrams, developed to help system and software developers for specifying, visualizing, constructing, and documenting the artifacts of software systems, as well as for business modeling and other non-software systems. The UML represents a collection of best engineering practices that have proven successful in the modeling of large and complex systems.

## 3-3 Data flow diagram

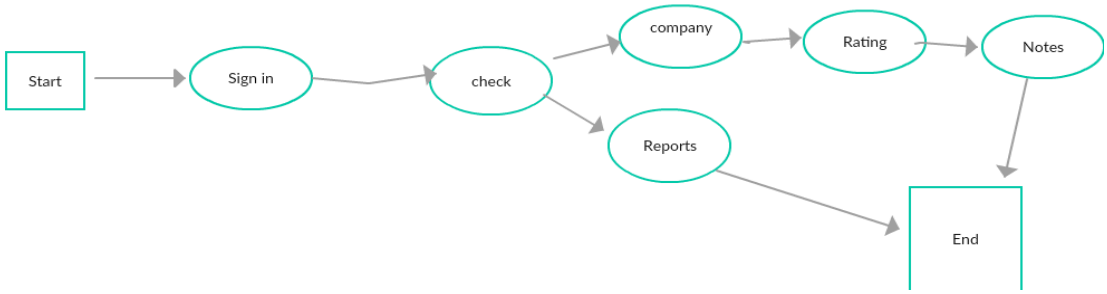
### 3-3-1 what is DFD?

A data flow diagram (DFD) maps out the flow of information for any process or system. It uses defined symbols like rectangles, circles and arrows, plus short text labels, to show data inputs, outputs, storage points and the routes between each destination.

### 3-3-2 Data flow diagram for user




### 3-3-3 Data flow diagram for admin



## 3-4 Use case diagram

### 3-4-1 what is use case diagram ?

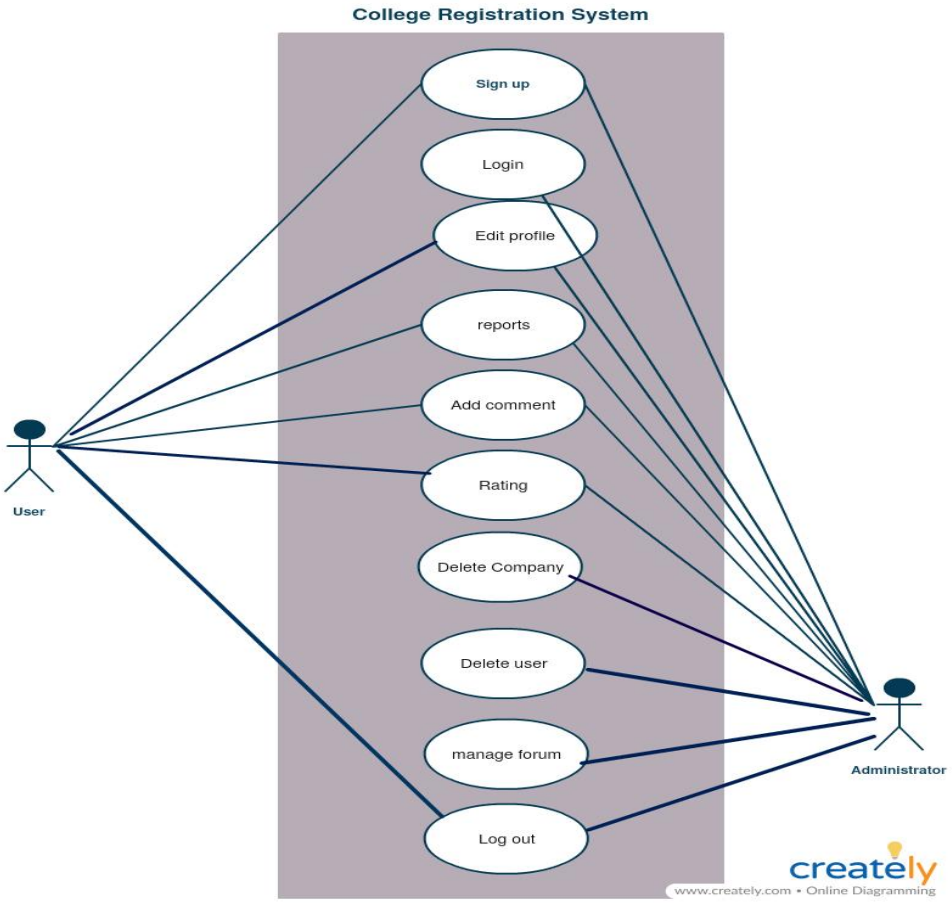
in the Unified Modeling Language (UML), a use case diagram can summarize the details of your system's users (also known as actors) and their interactions with the system. To build one, you'll use a set of specialized symbols and connectors. An effective use case diagram can help your team discuss and represent:

Scenarios in which your system or application interacts with people, organizations, or external systems

Goals that your system or application helps those entities (known as actors) achieve

The scope of your system

### 3-4-2 use case diagram for student forum

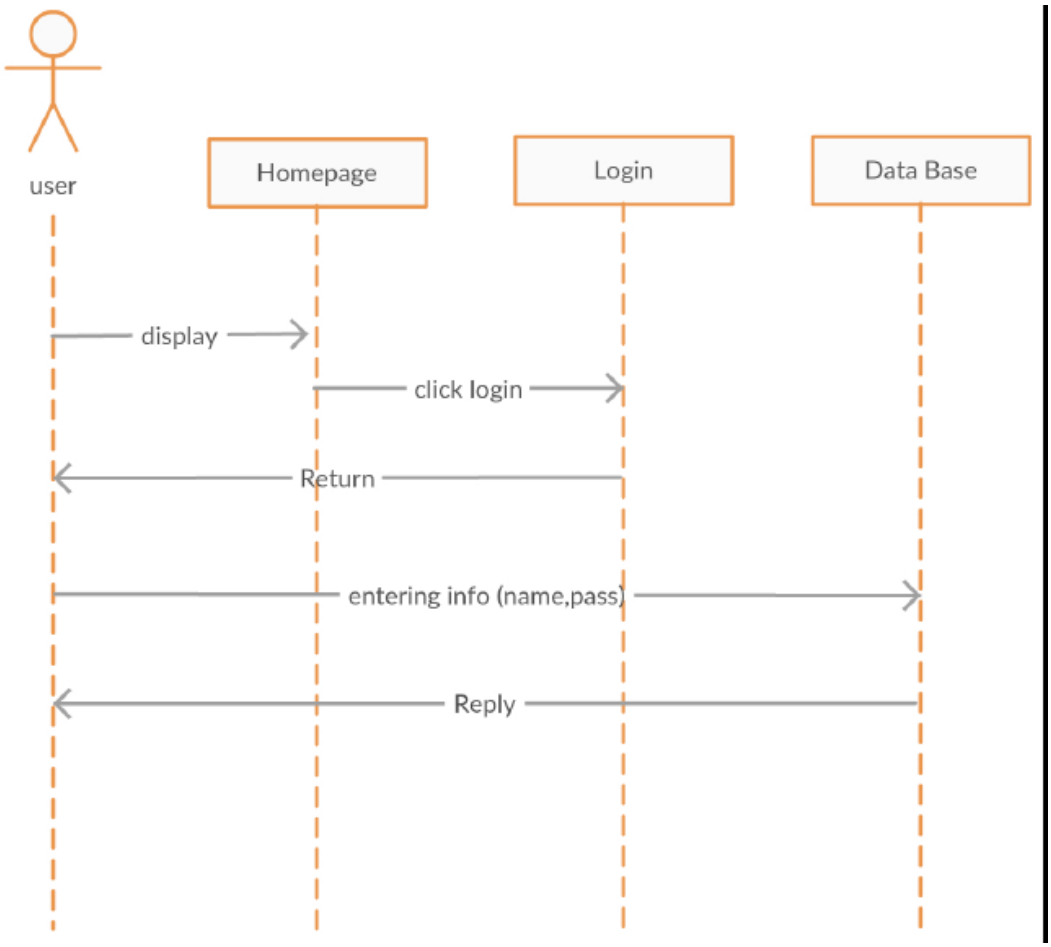



## 3-5 Sequence diagram

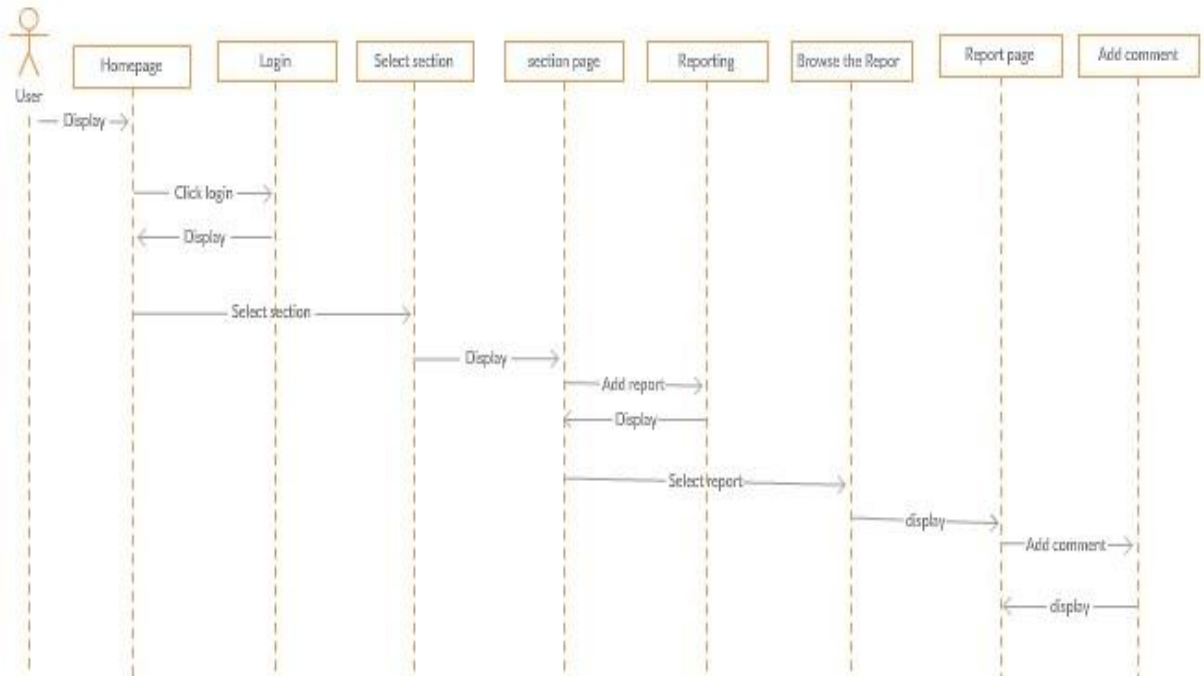
### 3-5-1 what is Sequence diagram?

Sequence diagrams describe interactions among classes in terms of an exchange of messages over time. They're also called event diagrams. A sequence diagram is a good way to visualize and validate various runtime scenarios. These can help to predict how a system will behave and to discover responsibilities a class may need to have in the process of modeling a new system.

### 3-5-2 sequence diagram for login



## 3-5-3 sequence diagram for posting and comment

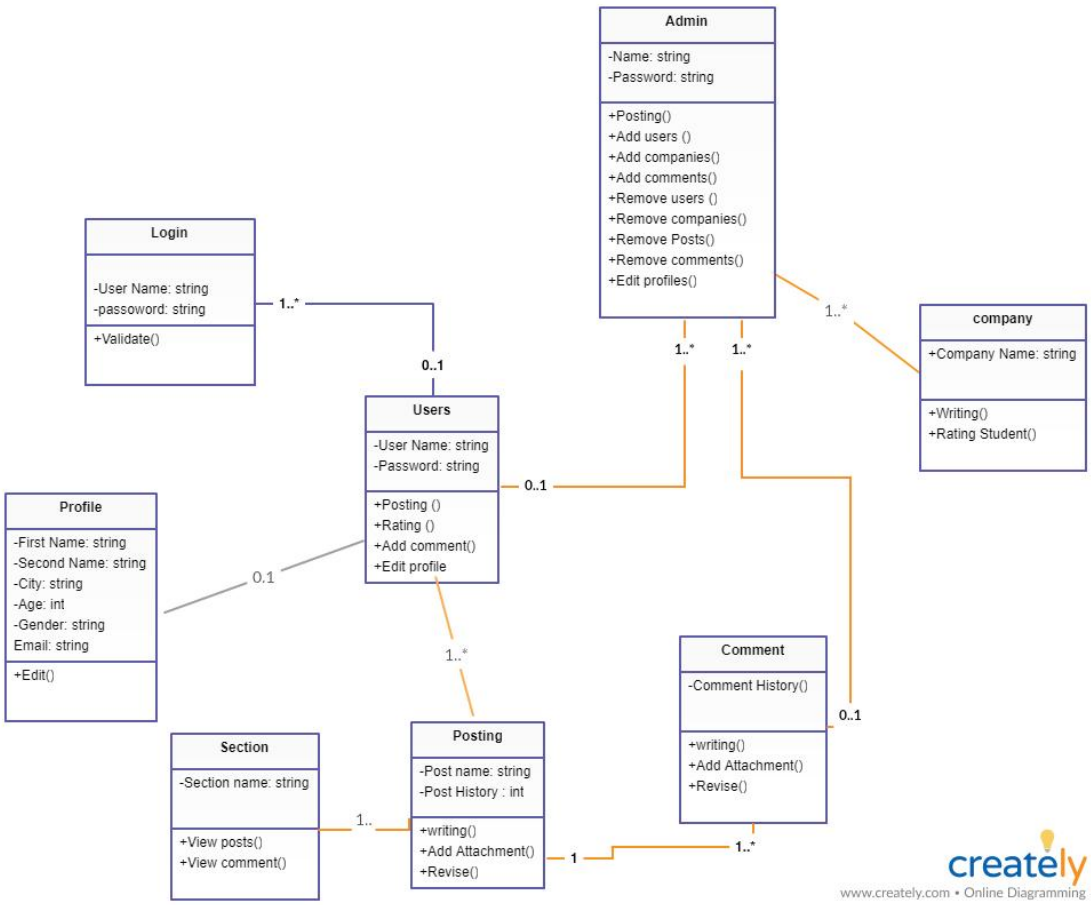


## 3-6 Class diagram

### 3-6-1 what is Class diagram?

One of the more popular types in UML is the class diagram. Popular among software engineers to document software architecture, class diagrams are a type of structure diagram because they describe what must be present in the system being modeled.

### 3-6-2 class diagram for student forum

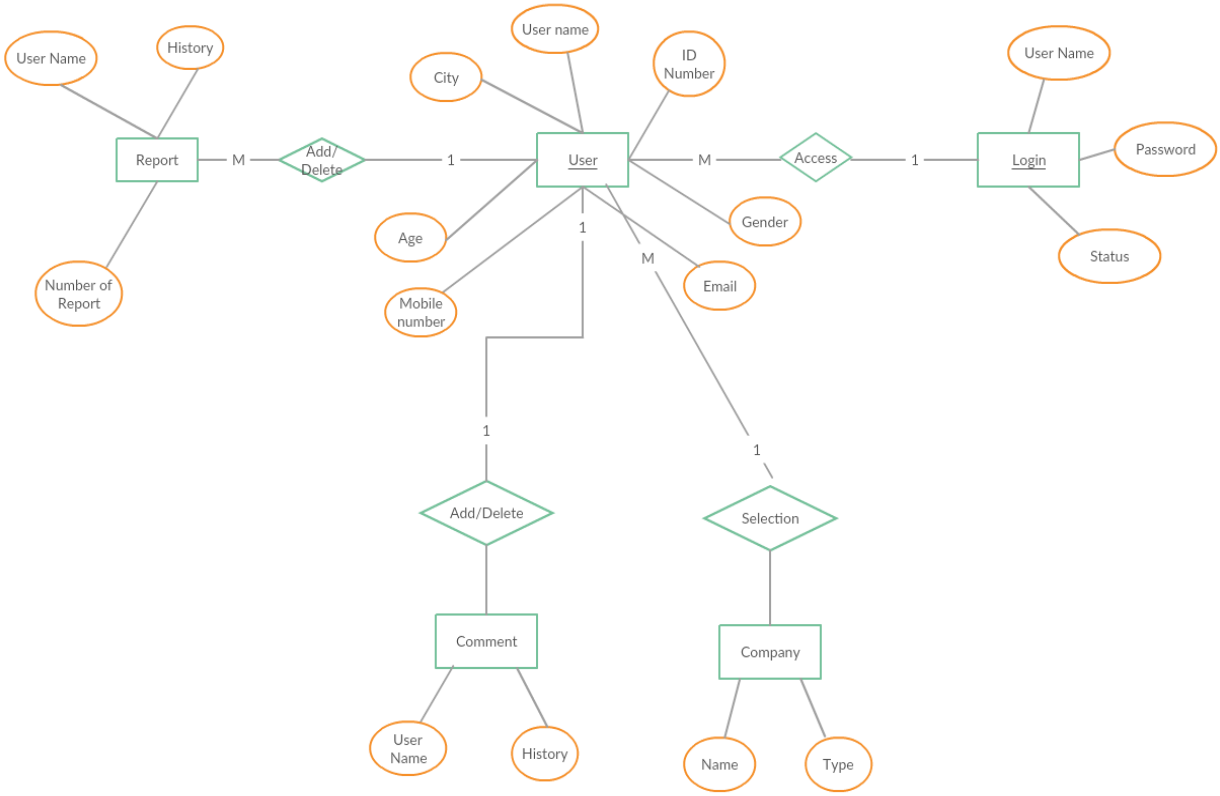


## 3-7 ER-Diagram

### 3-7-1 what is ER-Diagram?

An entity relationship diagram (ERD), also known as an entity relationship model, is a graphical representation of an information system that depicts the relationships among people, objects, places, concepts or events within that system.

### 3-7-2 ER-Diagram for student forum

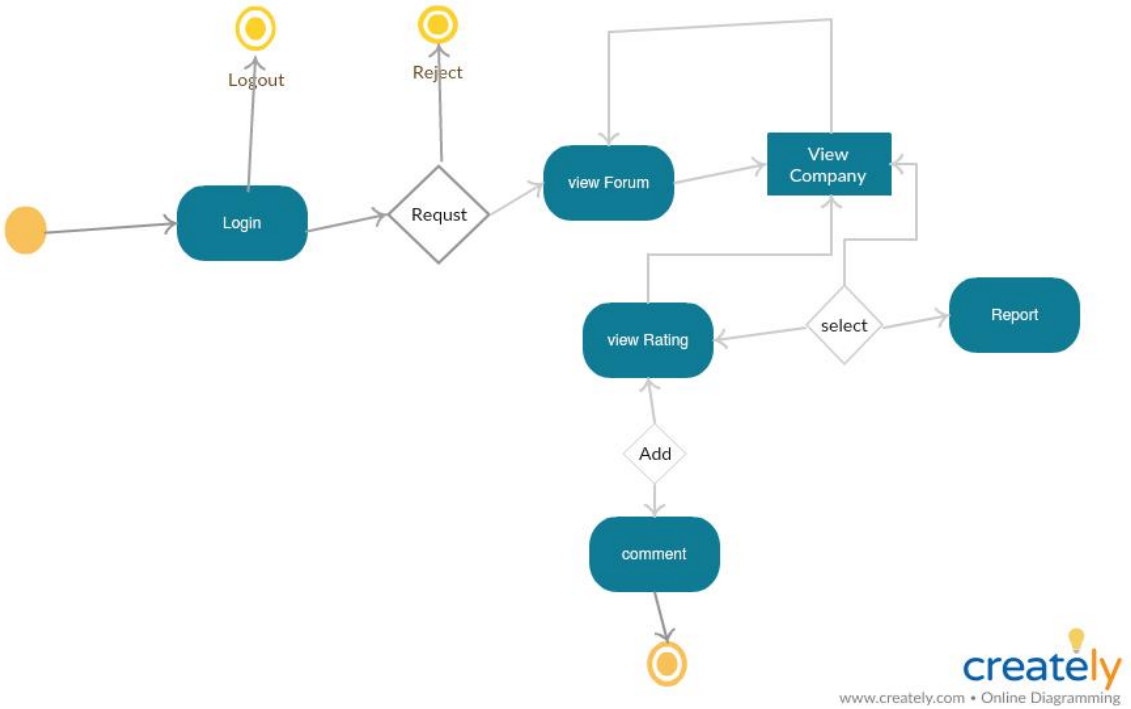


## 3-8 Activity Diagram

### 3-8-1 what is Activity Diagram?

Activity diagram is another important behavioral diagram in UML diagram to describe dynamic aspects of the system. Activity diagram is essentially an advanced version of flow chart that modeling the flow from one activity to another activity.

### 3-8-2 activity diagram for student forum



## 3-9 Interfaces

### 3-9-1 Home Interface

### 3-9-2 sign up interface