**University of Central Punjab**

*(Faculty of Information Technology)*

**Introduction to Database Systems**

**(Lab Fall 2022)**

**Quiz 1**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_ Roll: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Time = 30 minutes Marks = 10+10=20**

**Q1. Consider a database system for a Company. Create ERD of this database system**

A company has a number of employees, identified by Employee Numbers. The company wants to keep track of the employees’ names, addresses and ages. The company also has several projects. Projects are assigned a unique project identifier, and also have the attributes project name and start date. Each employee may be assigned to one start date. Each employee may be assigned to one or more projects, or may not be assigned to any projects. A project must have at least one employee assigned to it, and may have any number of employees assigned. An employee’s billing rate depends on the project he or she is assigned to. The company wishes to keep track of the employees’ billing rates on every project, and when the employees started to work on their projects.

**Q2: Note:** Create a new Database ‘**Graded\_Lab<Last Four Digits of Your Roll No.>**’andperform all following questions in it.

Create a Table named ‘Customers’ with following fields.

* CustomerId varchar(10)
* Name char(15)
* Age int
* Gender char(1)
* Email char(10)

Alter column of Email in **Customers, char** to **varchar(10)**.

Now Create a table ‘Preferences’ with following structure consider datatypes by yourself.

**PreferenceId** **Preferrence**

Now alter table ‘Preferences’ and add ‘CustomerId’ column in it after ‘PreferenceId’ column.

|  |  |  |
| --- | --- | --- |
| **PreferenceId** | **CustomerId** | **Preferrence** |

Now alter table ‘Preferences’ and make ‘CustomerId’ foreign key. (reference PK Customers)