Assignment 2 – SQL
Software System Development – Monsoon 2022
Due Date: 16 September 2022, 8.30 pm

Instructions:

- This assignment is an individual submission.
- Total Marks of 50 Marks with duration of 3 weeks.
- All script submissions should be submitted via moodle
- Inputs/output should fit the criteria mentioned in respective question.
- All other conditions are open to your interpretations.
- Evaluation will be conducted based on a fixed grading rubric (syntax, logic, input and output) and the marks are divided as per prescribed weightage in respective questions.
- For queries, reach out to TAs via Moodle
- Download the source files from here - https://github.com/vranonymous/data

Q1: Import data from empdetails.csv file into a table called "person" with EmpID as primarykey in your local mysql database. Use **Source Files:** *empdetails.csv* to answer this question. Write the following stored procedure(s) to perform tasks as listed below:

a. Create a table called "hike2022" with columns **{HikePK, EmpIDFK, FirstName, LastName, Gender, WeightInKg, LastHike, LastSalary, NewHike, NewSalary}** with respective reasonable datatypes. Populate NewHike, NewSalary columns using your stored procedure with employee information whose weight is less than 50kg only. NewHike column should be populated with 2% increase to LastHike and recalculate the NewSalary using LastSalary column based on the hike percentage. Re-running the stored procedure should delete the data from existing hike2022 table and should repopulate the hike2022 table. **(10 Marks)**

Example: If Sai Anirudh's weight is 48, LastHike is 10% and LastSalary is 300000, then the NewHike is 12% and New Salary is 336000.

b. Create a table called "PersonJoining" with columns **{PJoinPK, EmpIDFK, FirstName, LastName, DateofBirth, Age, DateofJoining, DayofJoining, MonthofJoining, YearofJoining, WorkExpinDays}** with respective reasonable datatypes. Populate DayofJoining, MonthofJoining, YearofJoining, WorkExp columns using your stored procedure with employee information. Re-running the stored procedure should delete the data from existing PersonJoining table and should repopulate the PersonJoining table. **(10 Marks)**

Example: If Sai Anirudh's DateofJoining is 10-10-2011, then DayofJoining is 10, MonthofJoining is October, YearofJoining is 2011 and WorkExp is 3945 days.

c. Create a table called "PersonTransfer" with columns **{PTPK, EmpIDFK, FirstName, LastName, Gender, DateofJoining, CurrentRegion, NewRegion}** with respective reasonable datatypes. Populate NewRegion column to "DC" using your stored procedure for employees with Gender "F" whose Work Experience is more than 10 years. Populate the NewRegion column to "Capitol" using the same stored procedure for employees with Gender "M" whose Work Experience is more than 20 years. Re-running the stored

procedure should delete the data from existing PersonTransfer table and should repopulate the PersonTransfer table. **(10 Marks)**

Example: If Sai Anirudh's Gender is "M" and his Work Experience is more than 20 years, update his NewRegion entry to "Capitol".

Q2: Import data from timezone.csv and country.csv into tables called **"time_zone" (zonename, countrycode, timezonecode, timestart, gmtoffset, dst)** and **"country" (countrycode, countryname)** in your local mysql database. Using the data from the database, write a user-defined function called **"timezoneconvert"** which takes three arguments - sourcedatetimestamp, sourcetimezonecode and targettimezone. It should return the targetdatetimestamp. Ignore DaylightSaving timezones here. **(10 Marks)**

Example: timezoneconvert('29-07-2022 02:53:00', 'EST', 'IST') - 29-07-2022 12:23:00

Q3: By using the Person table created in Q1, write a SQL query to display data in the following format. **(10 Marks)**

EmployeeRegion	**No. Of Employee born between 00:00 hours to 08:00 hours**	**No. Of Employee born between 08.01 hours to 15.00 hours**	**No. Of Employees born after 15:01 hours until 22:59 hours**
Region_1	*Values*	*Values*	*Values*
Region_2	*Values*	*Values*	*Values*