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USMAN INSTITUTE OF TECHNOLOGY

Department of Computer Science

**CS311 Introduction to Database Systems**

**Fall 2019**

**Lab # 8**

**Objective:**

.

SHOAIB AHMED

**Name of Student:**

17B-033-SE

**A**

**Roll No: Section:**

29-Nov-2019

**Date of Experiment:**

06-DEC-2019

**Date Submitted:**

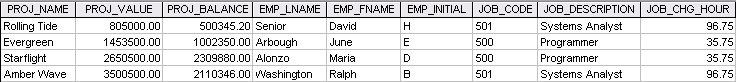
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Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

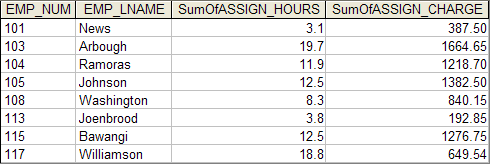
A **ConstructCo** database stores data for a consulting company that tracks all charges to projects. The charges are based on the hours each employee works on each project. The structure and contents of the ConstructCo database are shown below.

|  |  |
| --- | --- |
| Table Name | Table Name |
| **Employee**  EMP\_NUM NUMBER EMP\_NAME VARCHAR2 EMP\_FNAME VARCHAR2 EMP\_INITIAL VARCHAR2(1) EMP\_HIREDATE DATE DATE JOB\_CODE NUMBER EMP\_YEAR NUMBER | **Assignment**  ASSIGN\_NUM NUMBER ASSIGN\_DATE DATE PRO\_NUM NUMBER EMP\_NUM NUMBER ASSIGN\_JOB NUMBER ASSIGN\_CHG\_HR NUMBER ASSIGN\_HOURS NUMBER ASSIGN\_CHARGE NUMBER |
| **Job**  JOB\_CODE NUMBER JOB\_DESCRIPTION VARCHAR2 JOB\_ CHG\_HR NUMBER JOB\_LAST-UPDATE DATE | **Project**  PROJ\_NUM NUMBER PROJ\_NAME VARCHAR2 PROJ\_VALUE NUMBER  PROJ\_BALANCE NUMBER EMP\_NUM NUMBER |

1. Write the SQL Code that will create the table of above structure (table name should be like TABLENAME\_17B-XXX-CE)
2. Perform INSERT Command in the above tables of database **ConstructCo** (please find the data on page 3-4)
3. Write the SQL code to calculate the ASSIGN\_CHARGE values in the ASSIGNMENT table in the ConstructCo database. Note that ASSIGN\_CHARGE is a derived attribute that is calculated by multiplying ASSIGN\_CHG\_HR by ASSIGN\_HOURS.
4. Using the EMPLOYEE, JOB, and PROJECT tables in the ConstructCo database, write the SQL code that will produce the results shown as in below figure.



1. Write the SQL code that will produce result (FNAME, LNAME INITIAL, DESCRIPTION, CHG\_HOUR, PROJ\_NAME, PROJ\_VALUE) with the list of all employee including those who do not have assign in any project.
2. Using the data in the ASSIGNMENT table, write the SQL code that will yield the total number of hours worked for each employee



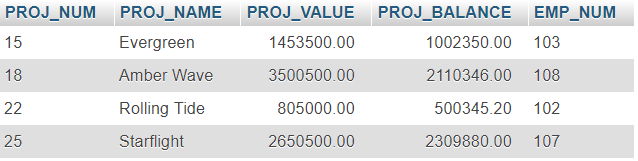
**Table :** Employee



**Table :** JOB



**Table :** PROJECT



**Table :** Assignment

