**Database Lab Test – Sept-1-2013 – (2 pm to 4 pm)**

**Given Schema**

**Create the below Schema which includes Student, Branch, Company and Placed (2 marks each)**

**Student (Student details)**

|  |  |  |
| --- | --- | --- |
| **Column Name** | **Data Type** | **Constraint** |
| student\_id | varchar  Format (01IT001-01IT999) | Primary Key and Foreign key to Placed |
| student\_name | varchar | Not NULL |
| branch\_id | varchar | Not NULL, Foreign Key |

**Branch (Branch details)**

|  |  |  |
| --- | --- | --- |
| **Column Name** | **Data Type** | **Constraint** |
| branch\_id | varchar | Primary Key and Foreign Key to Student |
| branch\_name | varchar | Not Null |

**Company (Company details)**

|  |  |  |
| --- | --- | --- |
| **Column Name** | **Data Type** | **Constraint** |
| company\_id | Numeric | Primary Key and Foreign key to Placed |
| Company\_name | varchar | Not Null |
| Package | Numeric | Not Null |

**Placed (Contains Students who are placed)**

|  |  |  |
| --- | --- | --- |
| **Column Name** | **Data Type** | **Constraint** |
| student\_id | Numeric | Foreign Key |
| company\_id | Numeric | Foreign Key |
| Date\_Placed | Date | Default (Sysdate) |

**Instructions to be followed while inserting data into tables : (2 marks each)**

Branch table : Consider only 2 departments (i.e. CS, IT).

Company table: Insert at least 4 company's details. Note that tuples for the companies Yahoo, Microsoft, Oracle, Google must be inserted as there are queries for those companies.

Student table: Insert at least 4 student's details from each branch.

Placed table: Insert 6 rows and at least one student should be placed in 2 companies.

Ensure that there is at least one student who is not placed in any company.

**Simple Queries : (2 marks each)**

1. Add one column named 'no\_of\_Stu' to Branch and update column 'no\_of\_Stu' with 20.
2. List names of companies and package who are offering package more than 8 lakhs and less than 10 lakhs.
3. Change the package of Microsoft to 15.7 lakhs.
4. List All Student names who got placed from IT.

**Complex Queries : (4 marks each)**

1. List out the student names who are placed. The output should contain whether they are from IT or CS. (IT student should have the word "Information Technology" and CS students should have "Computer Science" against them)
2. List out the student names and branch names who got placed in Microsoft or Yahoo on a specific date (eg:10-09-2013).
3. Update package of Microsoft to 18 lakhs and Google to 24 lakhs (Using single query).
4. Get the company id which placed the maximum number of students.

**Complex Query (10 Marks)**

1. List the Students Names who are not placed in any company. Use 2 different ways to solve the problem:
   1. JOIN
   2. Relational Algebra Operators