**COP 4703 Group Project**

**Overall 125 Points**

Your group is a consulting firm in the bidding process for a Database Implementation project. Your client, Disney, is creating a new park called StarWars Galaxy and would like to track schedules and budgeting for the construction of all the projects (facilities, rides, restaurants, etc.). and employees. The CIO would be evaluating your bid and has put out the following requirements for the system:

## Phase 1: 60 points (Due Mid-semester):

**Step 1: Create the tables**

An **employee** for Disney will have Employee Number, First Name, Last Name, SSN, Address, State, Zip, date of birth, certification, jobCode and salary. The available jobs are “Cast Member, Engineer, Inspector, and Project Manager” and an Employee can only have one job. When an employee gets paid, an entry will be made to a paycheck table, which will have a payId, Employee Number, periodBegin, periodEnd, payDate, GrossPay , Net Pay and containsBonus.

You will create tables to hold employee data and job data:

Table # 1 Name: Employee

Columns and Data Types:

* empNumber (char(8)), firstName (varchar(25)), lastName varchar(25)), ssn (char(9)), address (varchar(50)), state (char(2)), zip (char(5)), jobCode (char(4)) , dateOfBirth (date), certification(bit), salary(money) )

Table # 2 Name: Job

Columns and Data Types:

* jobCode (char(4), jobdesc(varchar(50))

Table #3 Name: Paycheck

Columns and Data Types:

* payID (char(8)), empNumber(char(8)), periodBegin (date), periodEnd (date), payDate (date), GrossPay (money), NetPay (money), containsBonus(bit)

**Step 2: Constraints**

Next You will write the script to create constraints on these two tables. The following constraints must be created:

* A Primary Key on the empNumber column in the Employee table.
* A Primary Key on the jobCode column in the Job table.
* A Foreign Key constraint named FK\_JOB on the Employe table’s jobCode column which upholds referential integrity to the Job table’s primary key.
* A Foreign Key constraint name FK\_Emp on the Paycheck’s table empNumber columns which upholds referential integrity to the Employee table’s primary key.
* A Legal Value constraint on the Employee table named EMP\_STATECHECK on the state column which can only be in either CA or FL.
* A Legal Value constraint on the Job table named JOB\_JOBCODE on the job column which only have one of the values ‘CAST’, ‘ENGI’, ‘INSP’ or ‘PMGR’

**Step 3 Insert the test data**

* Write the Insert statements to populate 3 sample employees. Make up any sample data for your employees. Make sure your data doesn’t violate any constraints.
* Write the Insert statements to populate the following available jobs codes and job descriptions:

|  |  |
| --- | --- |
| CAST | Cast Member |
| ENGI | Engineer |
| INSP | Inspector |
| PMGR | Project Manager |

**Step 3: Create Views**

Write the statements to create the following views:

View Set 1

* **vw\_CertifiedEnginers**: This View will show the empNumber, firstName, lastName and jobDesc of the employees who are engineers and have a certification value of 1.
* **vw\_ReadyToRetire:** This View will show the empNumber, firstName and lastName of those employees who are over 62 (Hint: use the birthdate year to calculate their age based on the current date year)
* **vw\_EmployeeAvgSalary:** This view will show the average salary and the employee jobcode grouped per the different job codes.

View Set 2

* **vw\_HolidayBonus:** This view will show the empNumber,firstName,LastName and NetPay for all employees who have a paycheck payDate of 12/01/17 and less than 1/01/18 and containsBonus is 1.
* **Vw\_SeniorMgrGross:** This view will show the empNumber,firstName,LastName,and GrossPay for all employees who have a job description of “Project Manager” and have a salary of over 100,000.

**Step 4: Create Stored Procedures**

You will create the SQL Scripts to create procedures to insert/ update data. The following definitions specify the parameters that can be passed in. The underlined parameters are required.

Make sure that your procedure inserts records if the required parameters do not exist, but they update records if the required parameters do exist.

* SP\_AddUpdateEmployee: Adds/Updates an employee with all the field information.
	+ **Parameters:** empNumber, firstName, lastName, ssn, address, state, zip, jobCode, dateOfBirth, certification, salary.
* SP\_DeleteEmployee: Deletes a project by the project Id.
	+ **Parameters:** empNumber

Phase 1 Deliverables:

The following files will be turned in by each group:

* 1. **Tables.sql**
	2. **Data Inserts.sql**
	3. **Views.sql**
	4. **StoredProcedures.sql**

**Grading Criteria:**

* Table Creation (10 pts)
* Constraints (10 pts)
* Data Insert (10 pts)
* View Set 1 (10 pts)
* View Set 2 (10 pts)
* Stored Procedure (10 pts)