

DATABASES SYSTEMS PROJECT

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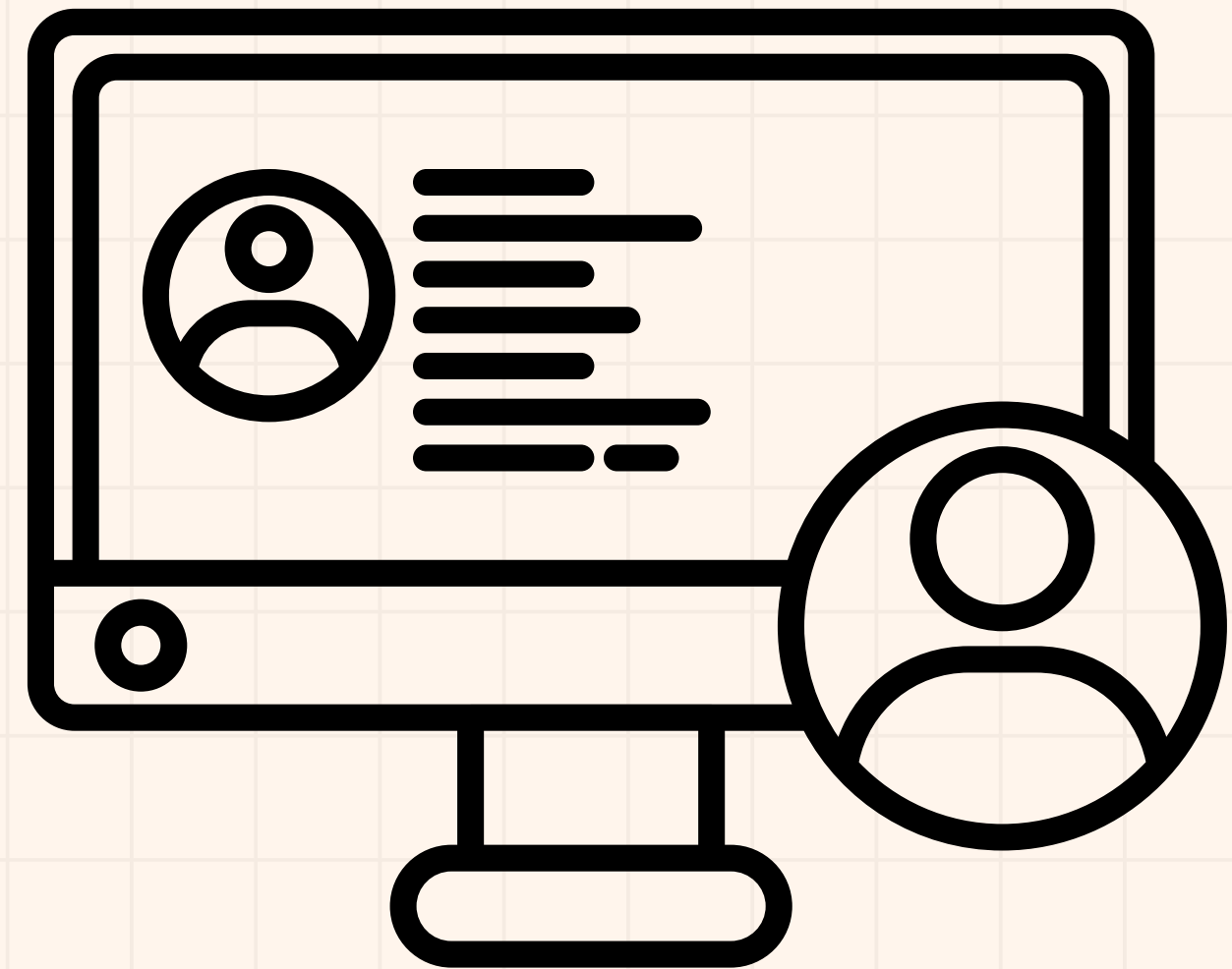


INTRODUCTION

Human Resources (HR) is a key part of organizations, helping to manage and grow the organization, which is one of the most important parts of any business.

The bigger the organization is, the more employees and locations it has. The purpose of this project is to use Oracle SQL to create a model that stores, views, and updates the organization's employees and their related information.

The main objective is to apply the concepts learned in the Database Systems course (CS3132) in a meaningful way, demonstrating the course's outcomes.



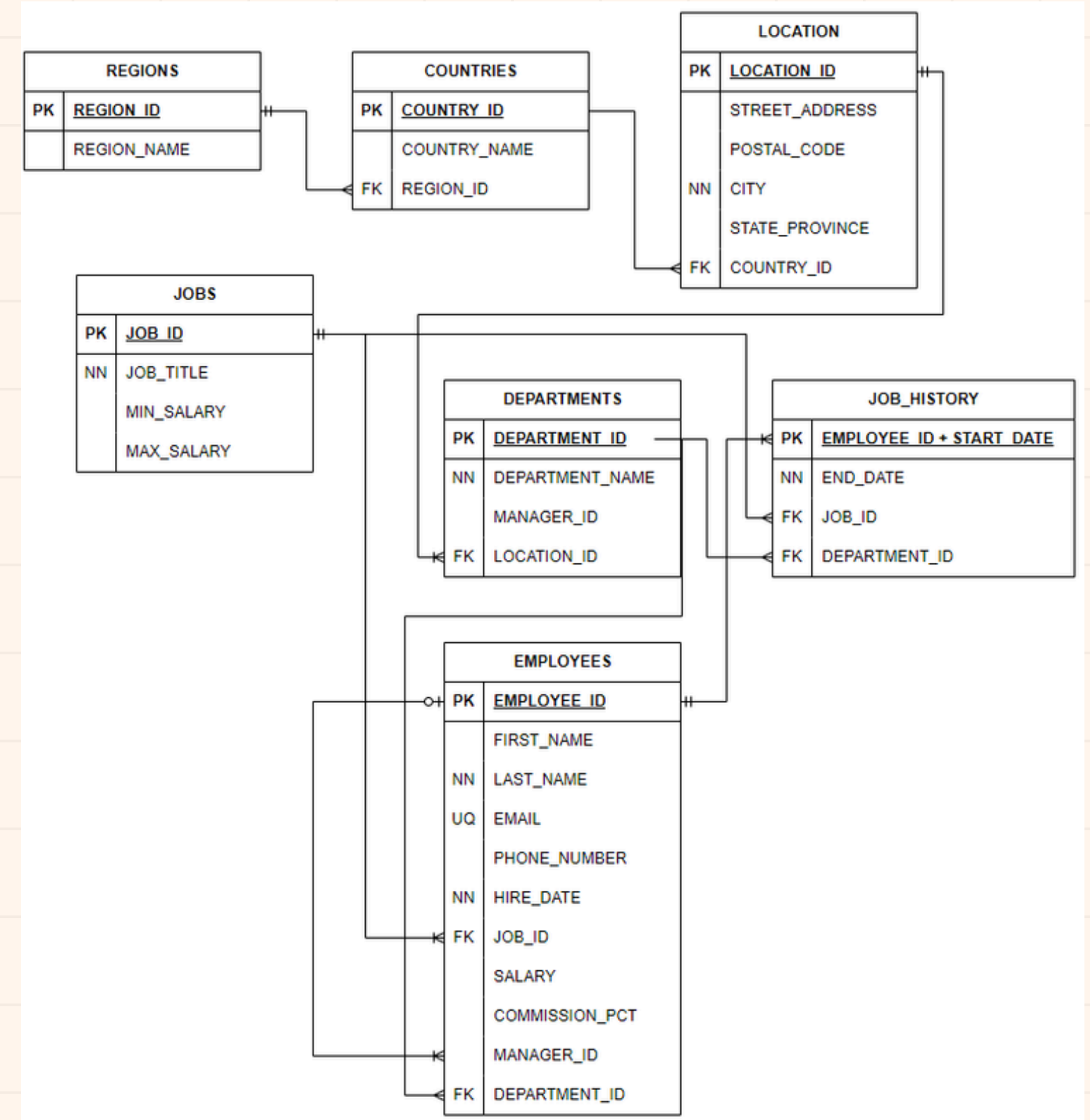
HR ER DIAGRAM

HR database can contains tables:

- Region and countries where workplaces and branches are stored.
- Location that gives more details about the department place within country.
- Jobs that represents an employee role.
- Job history which is an employee's role changing over time.
- departments which is a functional area within the organization which contain several employees.
- Employees to store their information and manage them.

This entity relationship diagram was based on the Oracle HR schema which was made to better organization management.

You can find a better resolution ERD through the link [HERE](#).



COVERED TOPICS

The topics covered in CS3132:

- Sub-queries.
- With clause.
- Windows function.
- Case clause.
- Views.
- Execution plan.
- Indexes.
- Partitioning.
- PLSQL
 - Basics.
 - If-statement, loops.
 - Cursor.
 - Exception.
 - Procedure.
 - Functions.
 - Triggers.
 - Collections.



RUNNING NOTE

Since that Oracle Apex has a starnge way to take inputs from user (as block), the most easy and efficient way was to make an (if-elsif-statement) to take the needed input and control the procedures / functions using one vairable (MAIN_OPERATION).

Enter Bind Variables - Google Chrome

apex.oracle.com/pls/apex/f?p=4500:138:120437289944281:::

Submit

Bind Variable	Value
Required → :MAIN_OPERATION	10
The rest of the inputs are optional depending on the main_operation	:SALARY_RANK_BY_DEPARTMENT
	:NEW_EMP_ID
	:NEW_FIRST_NAME
	:NEW_LAST_NAME
	:NEW_EMAIL
	:NEW_PHONE_NUMBER
	:NEW_HIRE_DATE
	:NEW_JOB_ID
	:NEW_SALARY
	:NEW_COMMISSION_PCT

REFERENCES

The list of most helpful references:

- UQU CS3132 slides (by Dr. Basem Alkazemi).
- [GeeksForGeeks – PL/SQL](#).
- [Oracle HR schema](#).





THANK YOU

