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## Understanding the Project & Planning

1. What problem is the project attempting to solve?

a. What documents do we have to analyze or support the problem?

Data is badly formatted and not readable. Everything is manually inputted with no verification or validation. We need to use the excel sheet FinalGrid, CourseList file and PEO1ComputerScienceTech file. We may also need to use the course outline.

2. What is a course?

Each course is tasked with the goal of teaching student’s certain skills and requirements to progress in their field or to gain knowledge on a topic. Courses can be dependant on others and can follow other courses topics.

3. What is a competency?

A competency describes the skills that the course is trying to teach the students. A course can tech multiple competencies and allow us to better understand what the goal of the course is.

4. What is a domain?

A domain groups up the courses into more general terms to allow us to create sub divisions of the computer science program.

5. Where will the final program run?

The final program will run on the console using the version of java used on our lab computers and will work on PDBORA19c.

6. What tools and languages will be required?

We will be using the following languages: Java, sql, plsql

a. What libraries will be used?

We will use the following libraries: Java.sql, java.util

b. How will code be managed?

Code will be managed in different classes for each table in our database with a application class and a class that controls the calls to the database.

c. What setup steps will be necessary for the developer?

Run the build script, run the java application class after compiling every class.

d. What setup steps will be necessary for the user?

Unzip the zip folder, run the build script, run the java application class after compiling every class.

7. What is the workflow? Think about how you will use git to manage the project

We will each pick something to work on so we r not conflicting each others task and then push to git and hopefully the code all works together.

8. How long do we have to do the project?

6 hours of lab time and 6 hours of homework time = 12 hours total

9. How much class time will be available to work on the project?

We will be allocated 4 lab periods to work on the project.

10. When is the project due?

The project is currently due on November 18th ,2022.

11. What are the deliverables?

The deliverables are the project planning exercise and the final project which is a zip file that contains the 2 sql files(create and remove) and the java folder containing the pom and all the classes.

## Database

1. What information does the database need to capture?

a. How many tables will there be?

We have counted around 7 tables.

b. How will tables be related?

Some will be related by bridging tables, and some will be referenced. They will mostly have id’s to reference them in others table.

2. What PL/SQL packages will the DB have?

We will attempt to make a couple of packages to better organize the code and make it more readable for a user.

3. What will the procedures do?

The procedures will control the tables data which means inserting data, updating data, deleting data.

4. What will the functions do?

The functions will do calculations using data in the database and get data from the database to show in the java application.

5. Will there be triggers?

Yes, there should be triggers for logging.

## Starting Point

1. What needs to be done first?

Normalize data and create erd’s.

2. What needs to be done second?

Create sql database and add classes and test data.

3. How will tasks be split up?

We will discuss before starting what we want to do and try to make it as even as possible while we all learn as many competencies as possible. Every group member will contribute to each element of the project.

## Code Design and Setup

1. What will the project folders look like? Think about how Java projects are structured

Project folder which is also the git repo clone with a java folder created with maven, an sql folder with one or more sql file(s), and an erd pdf and a readme.md file with all the steps to setup and run the program for the user.

2. What scripts will you need to setup the project?

We will need a create.sql to create all the tables, procedures, objects, etc… for the sql and a remove.sql which drops everything.

3. Create a git repo and place it on Gitlab with the group members for the project. Add the instructor to this repo and provide the URL

<https://gitlab.com/web299/fall2022database2project.git>

4. Setup the basic elements of the Java Project as per the project specs and your answers to the questions above

a. Ensure that the required files are present in the repo

The required files are present.

b. Add any libraries that are required

Added java.sql and java.util.

c. Ensure that all team members can clone the repo and compile and run the project