CS157A Project Milestone 1: Topic Description & Analysis

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Contents

1 Introduction

In this milestone, you will describe the scenario for which you will be developing a database application within the semester. You will identify the key data, operational, and business requirements. You will also develop a landing page for your project.

Pre-requisites   You have your project team identified, project team # assigned by the instructor, and the topic chosen and accepted.

2 Tasks

2.1 Canvas group's homepage

Design a landing page for your project. This page will be displayed on your team's team's Canvas page. Use your creativity in designing your team's page! Refer to "How do I create a new page in a group" at https://community.canvaslms.com/t5/Student-Guide/How-do-I-create-a-new-page-in-a-group/ta-p/304. Go to your team's Canvas page (People → Groups). Once you are on your team's page, got to "Pages" in the Navigation panel. Click "+Page" to add a new page. Design your page using plain text editor or HTML. Your page should contain the following sections:

- Logo - choose an image (logo) that represents your team/topic. You can look for free images/ClipArt on the Internet. Place it centered on top of the page.

- Header - Course information, Team #, Topic and topic #, the weekly meeting times. Place it center below the logo.

- Team members - list and introduce each team member in 2-3 sentences. Mention how you met each other and what brought you to the topic of your project.

- Description - paragraph description of your topic/scenario.

Once you finished editing your page, save it as "Homepage", and set as Front page of your Canvas page (click three dots next to the "Edit" button and choose "Use as Front Page").

2.2 Scenario description

See uploaded case scenario descriptions for "The Hospital Case Study" and "The University Accommodation Office" as a blueprint for your scenario description, data requirements and transactional requirements.

2.2.1 Description of the topic

. This should be about a half-page text description of your scenario.

Sample description *Library Management System. XYZ community would like to create a library management system. The objective is for the database to handle all transactions for the library. The database needs to store all the data that is relevant to managing the books, managing customers, and the day-to-day activities of the library. Create a list of important data that would need to be captured and stored in the library management database.*

2.2.2 Data requirements

List and describe data requirements for your scenario.

Sample data requirements A list of data that would need to be captured in the library management system includes:

- Book data

- Member data

- Books inventory data

You need to describe each data requirement in more detail.

2.2.3 Operational requirements (transactions)

List and describe transactional requirements for your scenario.

Sample operational requirements A list of data operations that would need to be captured in the library management system includes:

- Book purchases

- Book loaning

- Cash transactions

You need to describe each data transaction in more detail.

2.2.4 Business rules and constraints

Your task is to identify the business rules and the associated constraints in the case scenario you described.

Business rules - example 1 Description *LibBook is a successful digital library that rents CDs and provides access to Internet for browsing their repository of articles and magazines. With the growing business, LibBook needs to enhance their information system to support proposed changes to the business. LibBook attracts new members easily and the number of members is growing rapidly. The membership base is not stable, however, which is a cause for concern. The main idea is to introduce the concept of membership at LibBook. Members will pay a membership fee and initially, there will be three types of membership (corporate, student, individual) although more may be introduced later. Student membership is free. Corporate and Faculty memberships incur a fee but entitle the member to privileges. The type of membership can be changed only if sufficient justification is provided.*

The business rules and constraints identified are:

- Business Rules:

    - Members will pay membership fees
    - Student membership is free. Corporate and Individual incur a fee.

- Constraint:

    - Members can belong to one of the three types of membership - student, corporate or individual.
    - Type of membership can be changed based on justification provided.

Business rules - example 2 Description *Star Care hospital is a multispecialty hospital that caters to needs of different patients. Every doctor registered with this hospital is assigned a unique ID that starts with the letter "DC". The hospital ensures that the doctors associated with them have a minimum of seven years of working experience. Every patient is required to register with the hospital on their first visit. When a patient arrives, a unique patient number starting with the letters "PT" is assigned to him/her.*

The business rules and constraints identified are:

- Business Rules:

    - Doctors need to register with the hospital.
    - Each doctor is assigned a unique ID starting with the letters "DC".
    - Patient must register with the hospital on their first visit.
    - Student membership is free. Corporate and Individual incur a fee.

2.3 Contributions

List each team member's contributions to this milestone.

3 Deliverables

The deliverable is the report uploaded on Canvas in pdf format. It has to contain all sections listed in Section 2.2 and individual contributions as listed in Section 2.3. Your Canvas page must be visible on your team's page as a front page.

4 Grading

The lab will be graded according to the rubric in Table 1.

Table 1: Grading rubric

Rubric	Criteria	Points
1	Designed and implemented a complete frontpage for the team's Canvas group including all elements listed in Section 2.1	6
2	Provided a thorough description of the scenario	6
3	Provided and described data requirements (at least 6)	6
4	Provided and described transactional requirements (at least 6)	6
5	Provided and described business rules and constraints (at least 6)	6
Total		**30**