

ABC Apartments have 25 units. People living in these units need to do their laundry but there is only one laundry machine, so each unit has to sign up for a time slot to have access to the laundry machine.

Within a 24 hour period, there are 8 time slots each 3 hours long. The day starts at midnight, so the first time slot is between 12AM and 3AM. The next time slot is from 3AM to 6AM and so on. The tenants are allowed to sign up for no more than one time slot per week.

They can only sign up for a week at a time with the week starting on a Monday and ending on a Sunday. A new week's signup becomes available on the Sunday midnight before the Monday of the new week.

Each unit must sign in with a user id and password and have the ability to view the weekly laundry schedule. Once signed in, the system should present the user with all the available time slots for the week from which he/she can select only one.

Those time slots that have been already selected by other users should not be available for selection. After the user selects a time slot, the system should confirm the selection for accuracy with the user and record it for him/her for that week.

If the user has already selected a time slot, instead of the available time slots, the system should display the date/day/time of the selected time slot for that week.

Each Sunday at midnight a new week's time slots become available for the residents to sign up.

Using System Development Life Cycle design and design a scheduling system that implements the above business rules.

The project will be accomplished in phases:

- I. (10) Planning: Determine the resources, timing and any constraints. Create a GANTT chart for the schedule. Assign tasks to resources and members.

Deliverable: GANTT chart, a description of the project

- II. (20) Systems Analysis and Requirements: Determine the needs of the users, interview stakeholders. Create a list of requirements for accomplishing the project and a Data Flow Diagram of the processes. There will be two opportunities to interview the stakeholders.

Deliverable: Data Flow Diagram (Context, Level 0)

- III. (20) System Design: Detailed design of the system. Create prototype of input/output interfaces, Entity-Relationship Diagram

Deliverable: Entity-Relationship Diagram

- IV. (20) Development: Creation of programs and any other elements needed for the project. The project will use XAMPP stack as its development environment.

Deliverable: User interface(s), Database dictionary

- V. (15) Testing: Creation of sample dataset, to test the system.

Deliverable: Sample test data

- VI. (15) Implementation: Complete testing and post the system on the common web site.

Deliverable: Source code with comments, database schema.