

SWE 3313 SYSTEM PROJECT DESCRIPTION

Spring 2017

You are to design a pizza order and delivery system for a new Pizza Shop. This is a brand new, "Mom and Pop" type, start-up operation. This shop is a pickup or delivery only business-- there is no restaurant dining. You are to design the whole computer system that will set up new customers, take orders, calculate bills, process payments, and contain the restaurant menu.

The following information is known:

1. You will set up a record for each new customer. This information will be keyed by customer phone number. Put information into the master record such as name, address, phone and type of charge account (Visa/ MasterCard). You also need to record pertinent information for locating the address (i.e., subdivision name, closest major intersection, etc.)
2. Your system needs to process payments in the form of checks, cash or credit cards. You will need to keep track of the type of payment made and the amount.
3. Users will access the customer database for all customer transactions. The information should come up for already established customers showing their address and delivery information.
4. Your system should be able to print out a receipt of the order with a place to sign the form by the customer if it is on a credit card. This should have customer information, a list of items ordered, if it is for delivery or pickup, and amount due.
5. Your system should contain the complete restaurant menu for order-taking purposes. The user needs to have GUI access to the various menu items and be able to quickly enter the desired orders. This menu needs to have various sizes of pizzas, the typical types of toppings, various crust options, and beverages. The customer should be able to order things like a medium, thin crust pizza, with pepperoni and extra cheese. This domain should be very familiar to you and if not, what better area to "research"?

The following represents the physical documentation you must submit to support your system.

I. Project Plan:

The project plan must consist of the following components:

1. Scope
2. Schedule (including work breakdown structure, milestones and/or deliverables, and a Gantt chart)
3. Team organization (including resumes of the team members)
4. Technical description of the system
5. Data management plan
6. Test plan

II. Requirements Documents: The requirements documents will consist of the following:

1. Requirements definition document

2. Requirements specification document

Your documents should include the following: (See text)

Requirements Definition:

- English text

- Paper prototype (drawn by hand or via a drawing tool like Visio or Word)

Requirements specification document:

- Use case diagram (created by a drawing tool or Dia)

- Use case flow of events document (text document, created in Word)

- Class diagrams (created in Dia)

- Class documentation (created in Word)

- Entity relationship diagram(s) (created by a drawing tool or DB tool)

- At least **one** of each of the following (for documenting classes):

 - EITHER decision table(s) or state transition diagram(s)

The second part of the requirements includes the following documents:

- For the Definition: the paper prototype;

- For the Specification: use case diagram(s) and use case flow of events document and the class diagram

The third part of the requirements includes the remaining documents:

- Entity relationship diagrams; and all remaining documentation – Class specification documentation (created in Word), and either a decision table OR state transition diagram.

III. System Design Documents:

The system design documents will consist of the following:

- Conceptual system design:

 - Report formats (created in Word)

 - Screen layouts/ shots (screen captures from your prototype application embedded in a text document guiding the user through the application, with the requirements and use cases being addressed by each screen clearly identified on the bottom of the page – underneath the screenshot)

- Technical design: (high level)

 - Detailed class diagrams with all methods, attributes and relationships identified

 - Supporting text specification (created in Word)

 - Database table descriptions

Additional requirements:

1. Each group must take minutes of each meeting (those IN CLASS as well as OUTSIDE OF CLASS), including attendance. These minutes must be included in the appendix.
2. Each group must prepare weekly status reports that document the status of all activities your group is currently working on. Include what each person has contributed that week as well as an assessment of the percentage completed for each activity. These reports must be included in the appendix of the notebook and I may ask to see them at any point in the term, so keep them up-to-date.
3. ***Each team member must keep track of the time they spend working on the project.*** Include all time spent on a weekly time sheet, and identify which activities you were working on. (This information will be summarized for each team member on the weekly status report.) These individual time sheets must be included in the appendix and I may ask to see them at any point in the term, so keep them up-to-date.
4. Your final notebook must look professional; must include all clean, final documents, and have all marked-up documents placed in a section of the notebook (or in a sleeve); must have an appropriate coversheet (with team name and team members identified) and must include a table-of-contents.
5. Your team will assign a leader who will present the project in a video format. Alternatively, you may wish to produce a video with each member of the team presenting a different section of the project.