Test Project

IT Software Solution for Business

Session 4

Submitted by: Independent Test Project Design Team

Introduction

Seoul Stay is the first and only platform that allows international travelers from around the world to rent the best homes, estates, or condominiums in Seoul.

In this session the test project designers are looking for designs of a new project to complement Seoul Stay.

Contents

This Test Project proposal consists of the following documentation/files:
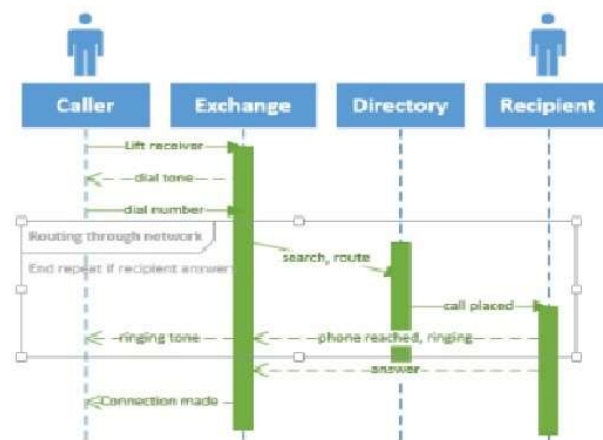
1. WSC2022_TP09_S4_EN.pdf   (Session 4 instructions)
2. Session 4-Attachment.pdf   (Requested functionalities of new project)
3. WSC2022_TP09_SX_EN.pdf   (Session X from previous tasks for diagrams)

Description of project and tasks

While developing the test project, please make sure the deliverables conform to the basic guidelines drawn out by different departments at Seoul Stay:

- There should be consistency in using the provided style guide throughout development. • Where applicable, use comments in code to have the code more programmer-readable.
- The use of valid and proper naming conventions is expected in all material submitted.
- Time management is critical to the success of any project and so it is expected of all deliverables to be complete and operational upon delivery.

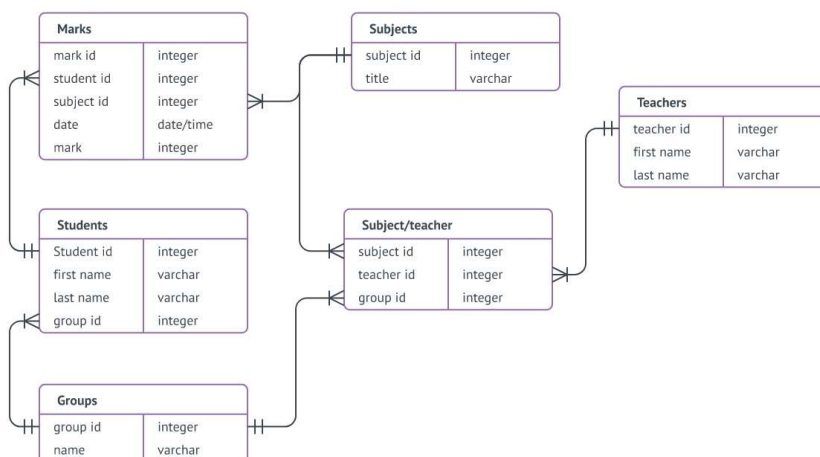# Instructions to the Competitor

4.1 Create Sequence Diagram

A sequence diagram or system sequence diagram (SSD) shows process interactions arranged in time sequence in the field of software engineering. It depicts the processes involved and the sequence of messages exchanged between the processes needed to carry out the functionality.

The project designers have chosen one of the sections from the Seoul Stay project for this task. You are required to provide a sequence diagram for the provided section that shows elements as they interact over time. They are organized according to object (horizontally) and time (vertically):

- Object Dimension:

  - The horizontal axis shows the elements that are involved in the interaction
  - Conventionally, the objects involved in the operation are listed from left to right according to when they take part in the message sequence.

- Time Dimension:

  - The vertical axis represents time proceedings (or progressing) down the page.

Please include all the notations required including lifeline notation, activation bars, message arrows, and comments.

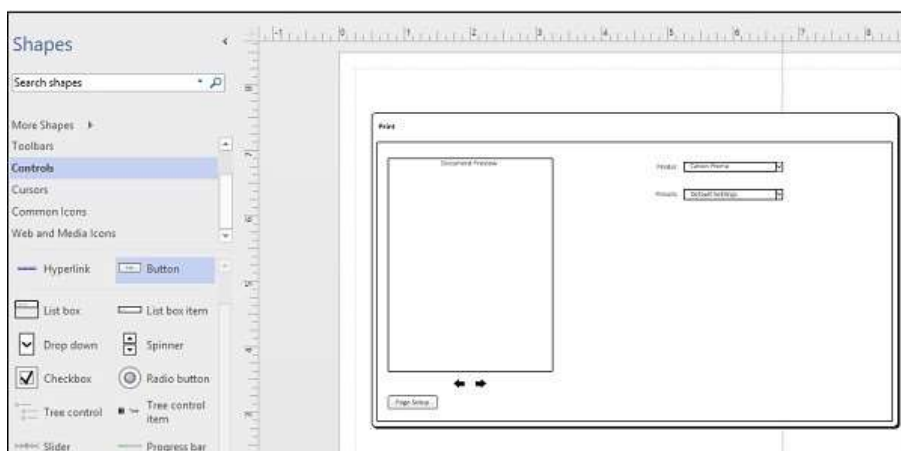### 4.2 Providing the Database Diagram

An Entity Relationship Diagram (ERD) is a type of diagram that lets you see how different entities (e.g. people, customers, or other objects) relate to each other in an application or a database.

They are created when a new system is being designed so that the development team can understand how to structure the database. They can also be created on an existing system to help the team understand how the system works and to find and resolve any issues.

The designers have provided you with a document called "Session 4-Attachment.pdf" which has their requirements for an upcoming project. After reading and analyzing the document and its application, you are required to provide a database diagram for the whole system. A sample of the requested diagram is drawn above. The diagram will need to provide the following parameters:

- Entities:

  - Name of tables.
  - Name of fields.
  - Type of fields.

- Relationships between tables used:
  - The relationship pathway (by using connecting lines).
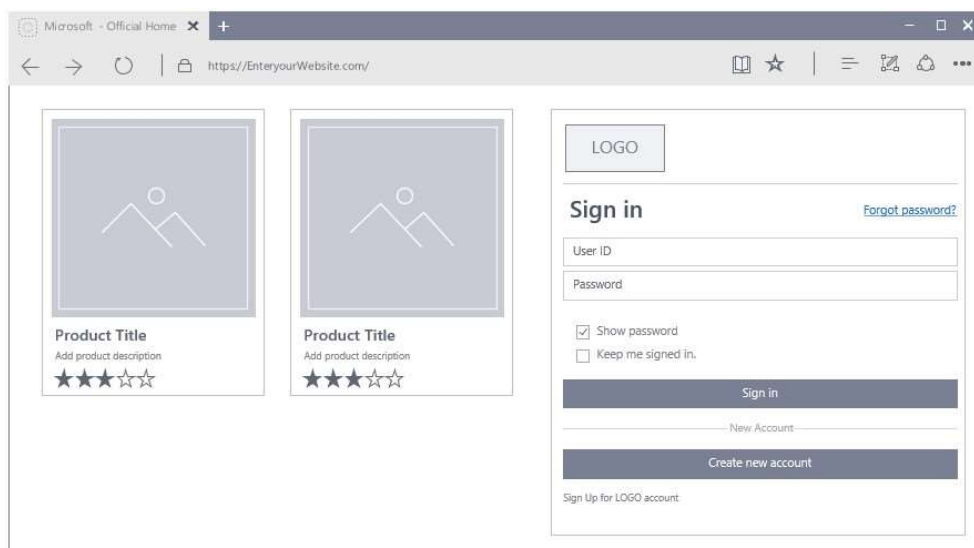 - Cardinality (by using indicators on connecting lines).

4.4 Prototyping Software Using Wireframes for Desktop Interface

You are here asked to provide a detailed description of the needed forms by using wireframe diagrams. You have been provided a sample wireframe diagram for you to model after. You may find description of the segment for this task in the deliverables part of the file ""Session 4-Attachment.pdf".

The following are some of the details required:

- A wireframe in digital design is a visual guide or page schematic that is stripped of typographic style, colors, graphics, and interactive elements, and represents a specific point in the design process. Its purpose is to show page-level layout ideas that depict functionality, behavior, and priority of content.
- The application is on the Windows desktop platform.
- All the required fields are to be included so to make it functional.
- The use of dialogue box as the container is recommended.
- Clearly labelled buttons and controls are required.
- Proper use of separators and indicators are necessary.
- Good use of input fields (drop-down and list boxes) is essential.

4.5 Prototyping Software Using Wireframes for Web Interface

A website wireframe, also known as a page schematic or screen blueprint, is a visual guide that represents the skeletal framework of a website. You may find description of the segment for this task in the deliverables part of the file "Session 4-Attachment.pdf".

The skeleton plan of a website can be broken down into three components: information design, navigation design, and interface design. Page layout is where these components come together, while wireframing is what depicts the relationship between these components.

- Information design is the presentation—placement and prioritization of information in a way that facilitates understanding. Information design is an area of user experience design, meant to display information effectively for clear communication. For websites, information elements should be arranged in a way that reflects the goals and tasks of the user.
- The navigation system provides a set of screen elements that allow the user to move page to page through the website. The navigation design should communicate the relationship between the links it contains so that users understand the options they have for navigating the site. Often, websites contain multiple navigation systems, such as a global navigation, local navigation, supplementary navigation, contextual navigation, and courtesy navigation.
- User interface design includes selecting and arranging interface elements to enable users to interact with the functionality of the system. The goal is to facilitate usability and efficiency as much as possible. Common elements found in interface design are action buttons, text fields, check boxes, radio buttons and drop-down menus.

The deliverables will be judged by a professional team of experts to have meaningful composition according to the components described above.

4.2 Create PowerPoint Presentation

The project designers are also asking for a presentation of a proposal for a new project. The subject of the presentation is the application that needs to be developed by the next team of developers.

The case study of the said department has already been provided and as part of another task, you were asked to draw diagrams based on your analysis of the study. You may reuse the diagrams you have already created in previous tasks. You may also use wireframes made with MS Visio in this session or other tools to define what you want to have done. Furthermore, you can use this document provided to you as a pdf file as a reference of how your presentation should

be structured. You are asked to show your skills at time management and organization and to present what you have created in the given time of five minutes.

The following items can be used be in your presentation:

- Technical Diagrams (ERD, Sequence Diagram)
- Wireframes of the forms and reports produced as part of this task.
- The text from the file "Session 4-Attachment.pdf".
- Other visual aids and elements.