IQRA NATIONAL UNIVERSITY

Sessional 2020 Examination

NAME	HOORIA KHAN ORAKZAI
ID	14263

Course Name	Max. Marks	Deadline	Date	Instructor
Software Requirement Specification	20	10th June, 2020	10th May, 2020	Aasma Khan

- **Attempt all questions.**
- **Marks will be given as per the DEPTH of the answer, not LENGTH.**

Question No: 01 (20)

Pair programming is an agile software development technique in which two programmers work together at one work station. One types in code while the other reviews each line of code as it is typed in. The person typing is called the driver. The person reviewing the code is called the observer. The two programmers switch roles frequently (possibly every 30 minutes or less).

Suppose that you are asked to build a system that allows Remote Pair Programming. That is, the system should allow the driver and the observer to be in remote locations, but both can view a single desktop in real-time. The driver should be able to edit code and the observer should be able to "point" to objects on the driver's desktop. In addition, there should be a video chat facility to allow the programmers to communicate. The system should allow the programmers to easily swap roles and record rationale in the form of video chats. In addition, the driver should be able to issue the system to backup old work.
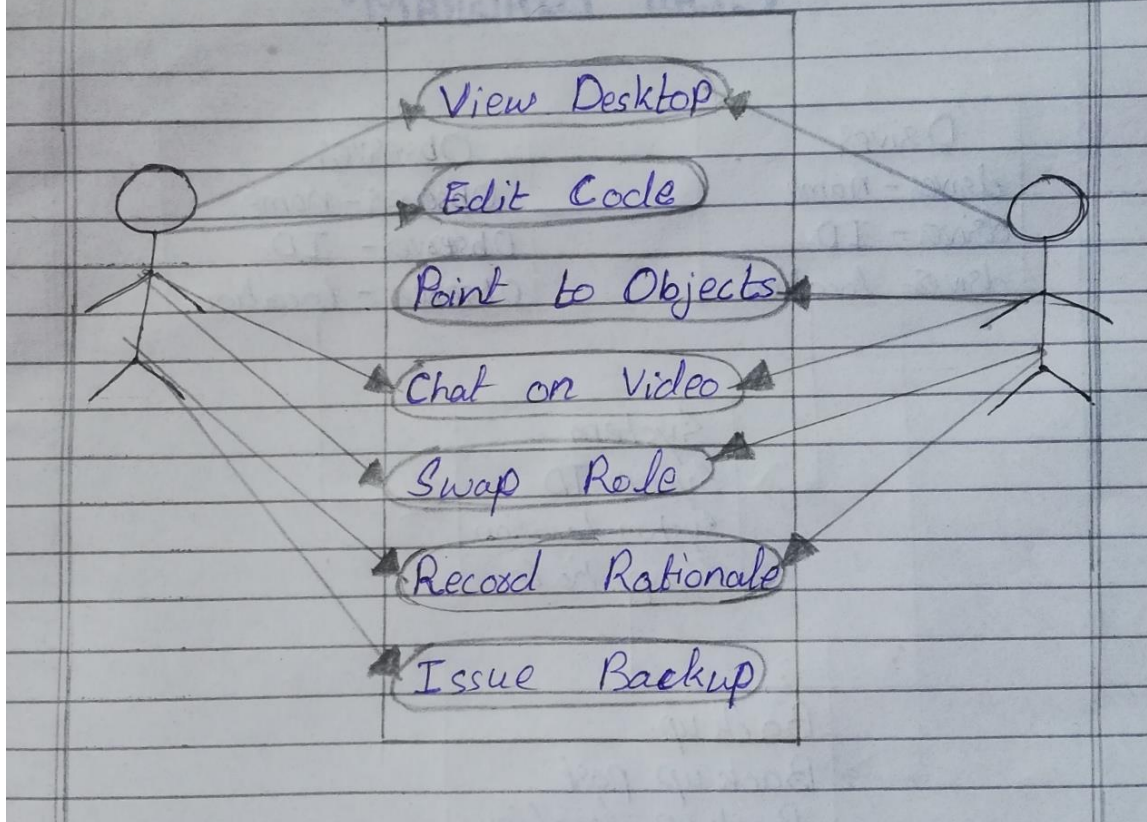
- Draw a use case diagram to show all the functionality of the system.

QUESTION NO 18
PART (A)
USE CASE DIAGRAMS-
To show all the functionality of the systems.

- Describe in detail four non-functional requirements for the system.
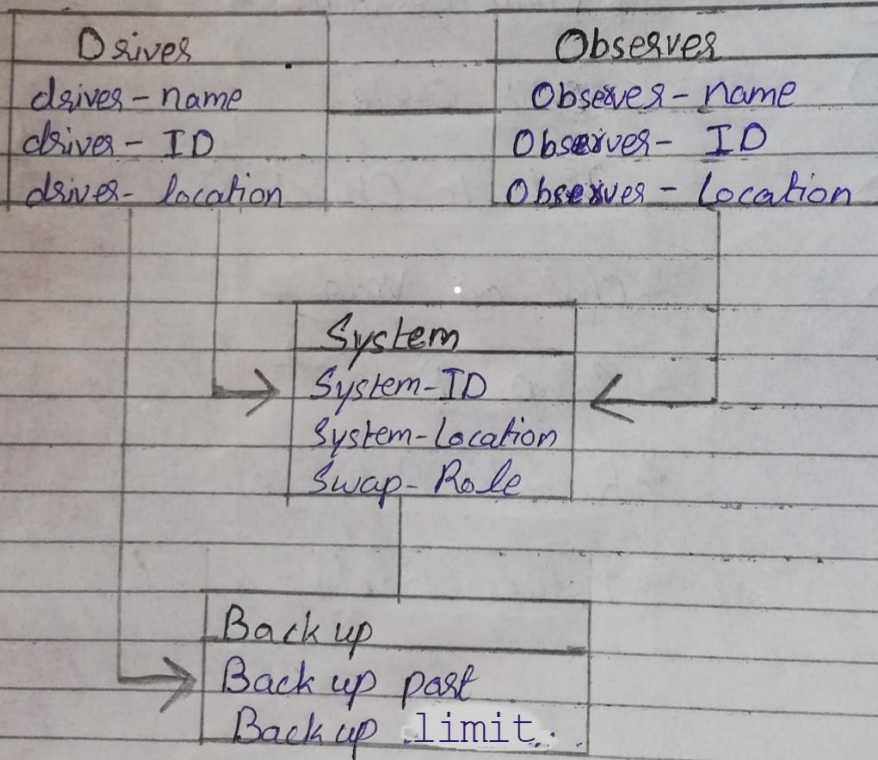 - ➤ **Easy of Use:** The front end interface must be simple and easy to use.
  - ➤ **Real-Time Perfomance:** The observer should be able to see the changes made by the driver immediately without delay.
  - ➤ **Availability:** The system should be available to both the programmers all the time.
  - ➤ **Security:** The backup code should be kept securely and be protected from unauthorized access.

- Give a prioritized list of design constraints for the system and justify your list and the ordering.
    - Principles of design of a company, team, or personal. For example, the designer who utilizes form follows the function of constraining designs.
    - A design that requires to work on other items like products, processes, services, systems, controls, information, and partners.
    - Functional requirements, like characteristics specification for the system.
    - Requirements defining intangible concept features. For example, there is a non-functional necessity that a structure is available

- Propose a set of classes that could be used in your system and present them in a class diagram.

PART (D)

Proposed a set of classes that could be used in your system and present them in a class diagram?

·CLASS DIAGRAM·

Driver		Observer
driver - name		Observer - name
driver - ID		Observer - ID
driver - location		Observer - Location

System
- System - ID
- System - Location
- Swap - Role

Back up
- Back up part
- Back up limit.

Good Luck ☺