|  |  |
| --- | --- |
| Ex No: 6 | **SEQUENCE DIAGRAM** |
| Date: 06/09/2021 |
| Video Link: | <https://drive.google.com/file/d/1eNZh-0NhvqesbaoG6SoK4B1Xn2XWw5Lt/view?usp=sharing> |

**OBJECTIVE**

Sequence diagrams demonstrate the behaviour of objects in a use case by describing the objects and the messages they pass. The diagrams are read left to right and descending. The example below shows an object of class 1 start the behaviour by sending a message to an object of class 2. Messages pass between the different objects until the object of class 1 receives the final message.

Here, this document will clearly explain the Sequence Diagram for the Project E-Learning System.

**DESCRIPTION**

In a Sequence diagram, classes and actors are listed as columns with vertical lifelines indicating the lifetime of the object over time.

**Object**

Objects are instances of classes, and are arranged horizontally. The pictorial representation for an object is a class (a rectangle with the name prefixed by the object name (optional) and a semi-colon.

Diagram

Description automatically generated

**Actor**

Actors can also communicate with objects, so they too can be listed as a column. An Actor is modelled using the ubiquitous symbol, the stick figure.

Diagram

Description automatically generated

**Lifeline**

The Lifeline identifies the existence of the object over time. The notation for a Lifeline is a vertical dotted line extending from an object.

Table

Description automatically generated

**Activation**

Activations, modelled as rectangular boxes on the lifeline, indicate when the object is performing an action.

Diagram

Description automatically generated

**Message**

Messages, modelled as horizontal arrows between Activations, indicate the communications between objects.

Diagram

Description automatically generated

**ALGORITHM**

Step 1: Identify the objects in the diagram according to the system to be drawn.

Step 2: Identify the sequence of transfer of messages between the objects.

Step 3: Determine how the messages are passed between two objects and how other objects respond.

Step 4: Create the sequence diagram based on the information from step 1 and step 2 with the tools provided.

**OUTPUT:**

**Table

Description automatically generated**

This Sequence diagram for the project e-learning system will clearly explained that this project has two actors of Student and an Instructor. Here the student can able to create account, login account and enrolling into the account and the Instructor can able to do the same login to account, upload the course materials, upload the classes and clarifies the doubts for the students. These are all the sequence of this E-Learning System.

**Result:**

The Sequence diagrams are used in the analysis phase of the software development to articulate the high-level requirements of the system are drawn successfully.