School of Computer Science Engineering and Technology

Course- BTech
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Year-2022
Date-30/09/2022

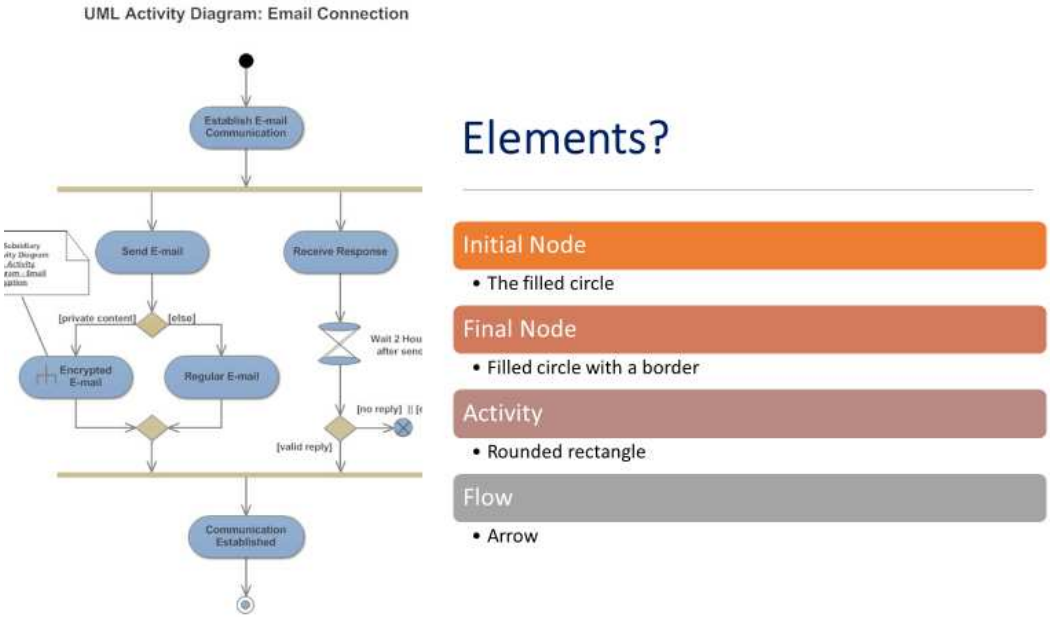
Type- Core
Course Name-Software Engineering
Semester- Odd
Batch- 2021-2025

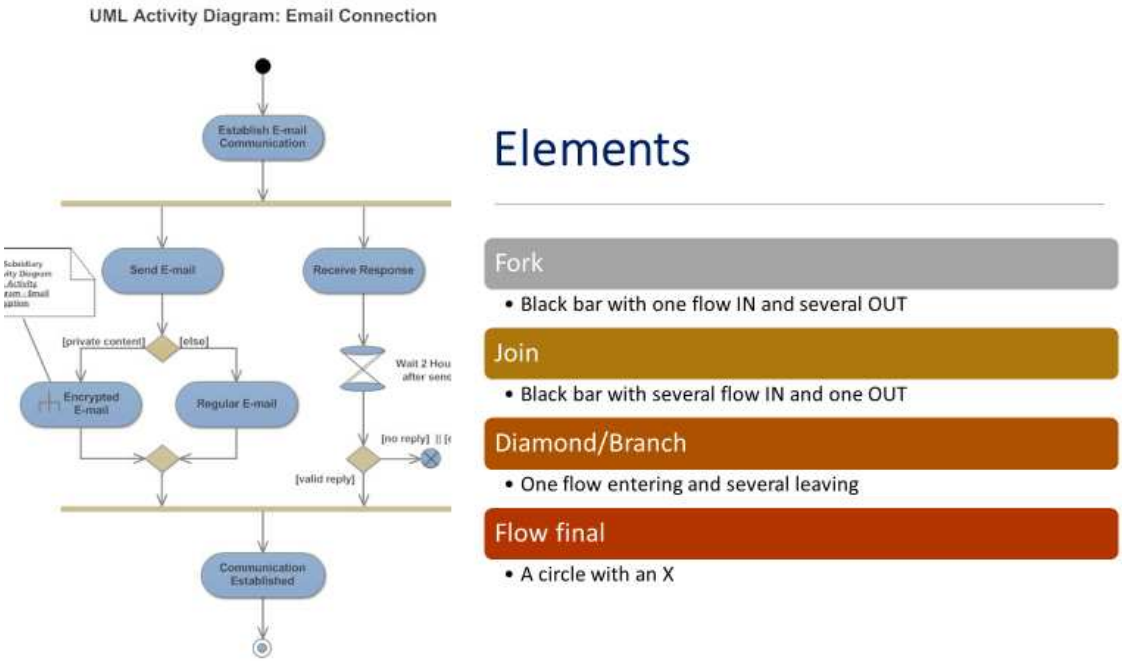
Lab Assignment No. 6 - UML Activity Diagram

CO Mapping

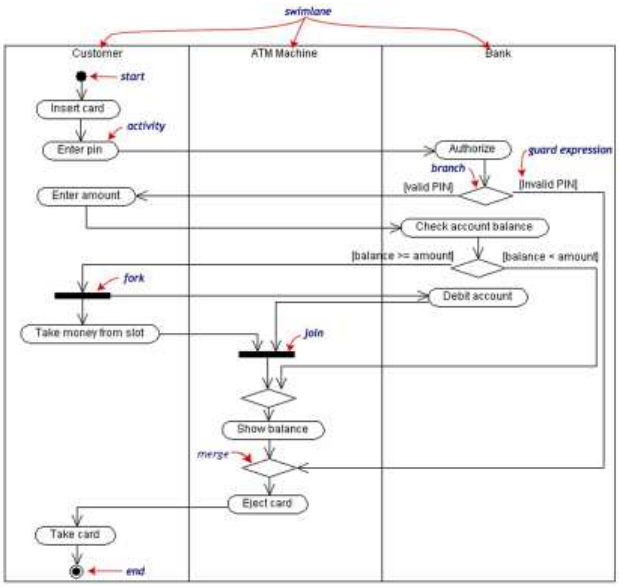
Exp. No.	Name	CO1	CO2	CO3
6	UML Activity Diagram		√	√

We know that the use-case diagram depicts the interaction of the user with the various use-cases/functionality of a software product under development. To get insights into the workflow/algorithm of a use-case, we construct an ***Activity Diagram***. Following are a couple of points to refresh your knowledge on various notations of activity diagram:





To simply the comprehension, ***swimlanes*** are used in the activity diagrams as well. In ***swimlanes***, activities are separated across various entities involved during a scenario. For example, the activity diagram below utilizes ***swimlanes*** for 'withdraw money' from an ATM system. The activities at the customer end are in the customer column (column 1). Similarly, the activities at ATM and Bank are in their respective second and third column.



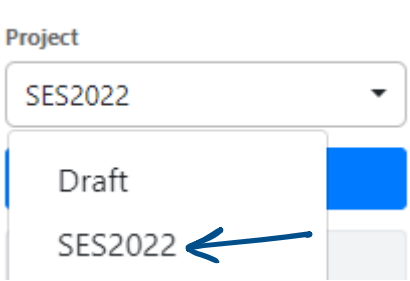
So far, we developed the Use Case diagram for **Online Hotel Booking System**. Our team lead thinks that; for some services/functions in the system, only the use-case diagram won't be enough. Hence, to understand the workflow/algorithm and to go with consistent communication across various development phases, team leaders want us to develop a UML Activity diagram for the following services:

1. Search room
2. Book room (**use swimlanes**)

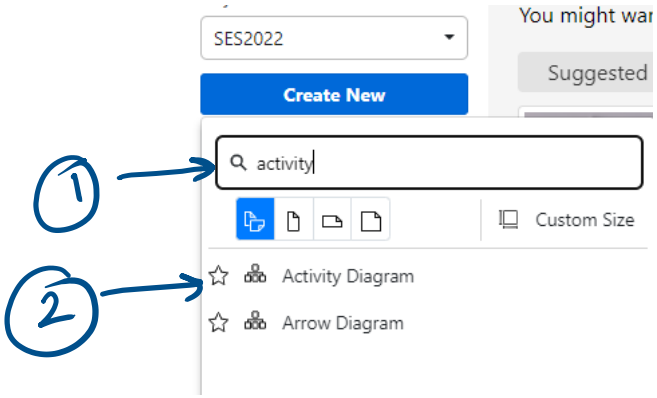
NOTE: This assignment is about developing UML diagrams. Hence, your UML notations (i.e., start-point, endpoint, shapes, associations, etc) must be correct.

Follow the steps and create your activity diagram for the above system utilizing the details:

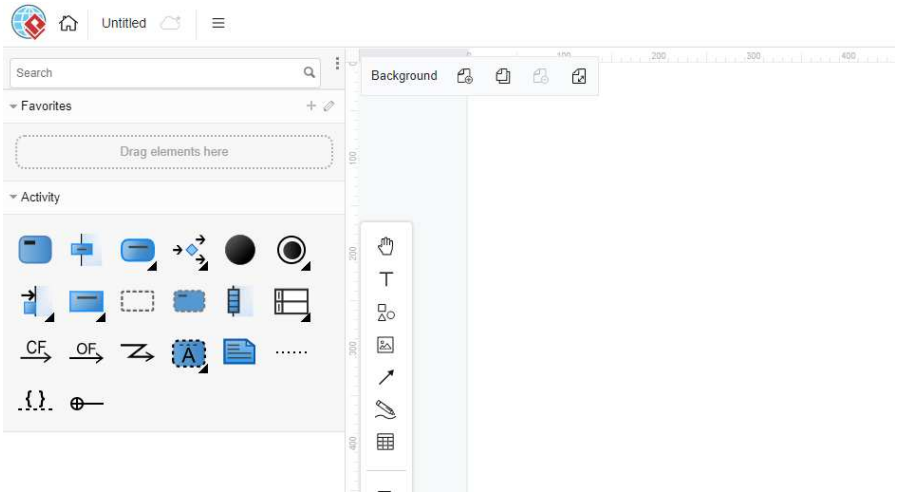
1. Log in to the online version of Visual Paradigm via Google Authorization: https://online.visual-paradigm.com/login.jsp
2. Switch to your previously created project (for past lab) by pressing the drop-down button on the left pane (in the example, project was SE2022). Did you notice that you can create a new project from here as well?



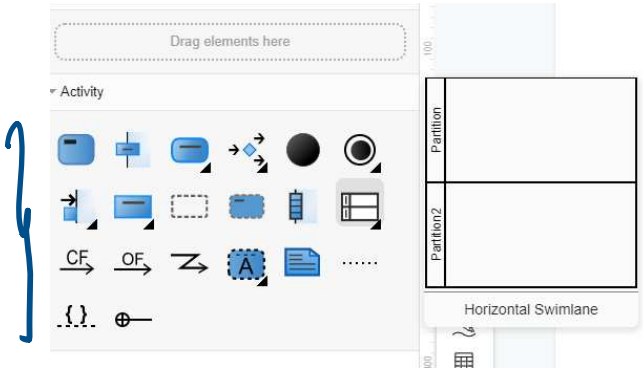
3. Click on Create New → type **activity** in the search box → select Activity Diagram



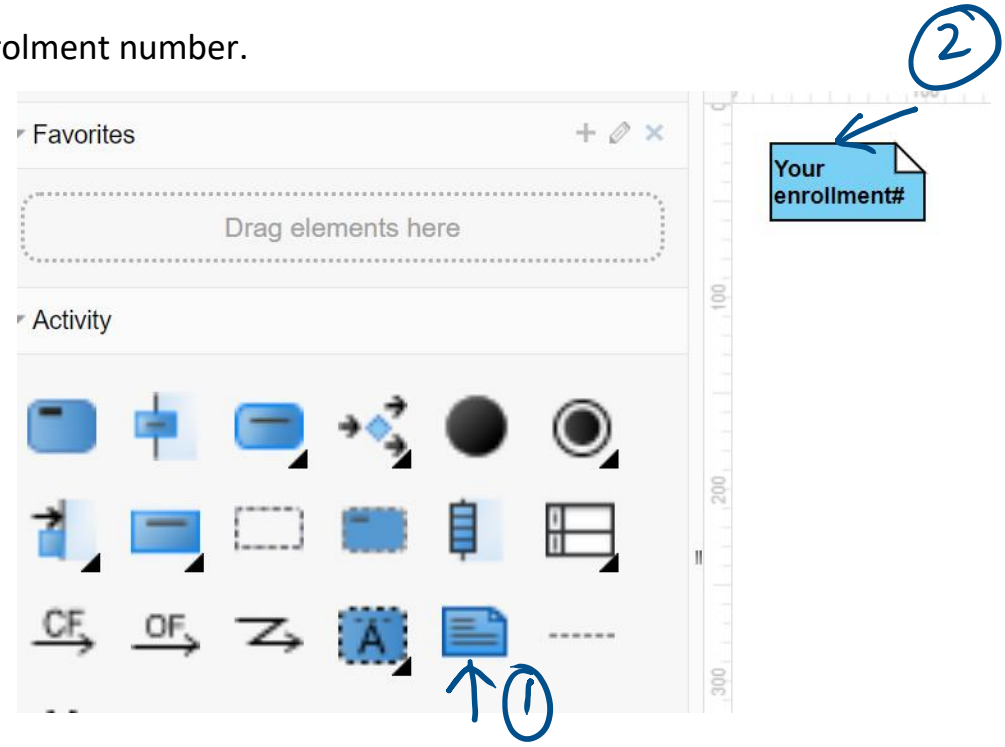
4. You will see the following screen which is now ready to create the activity diagram.



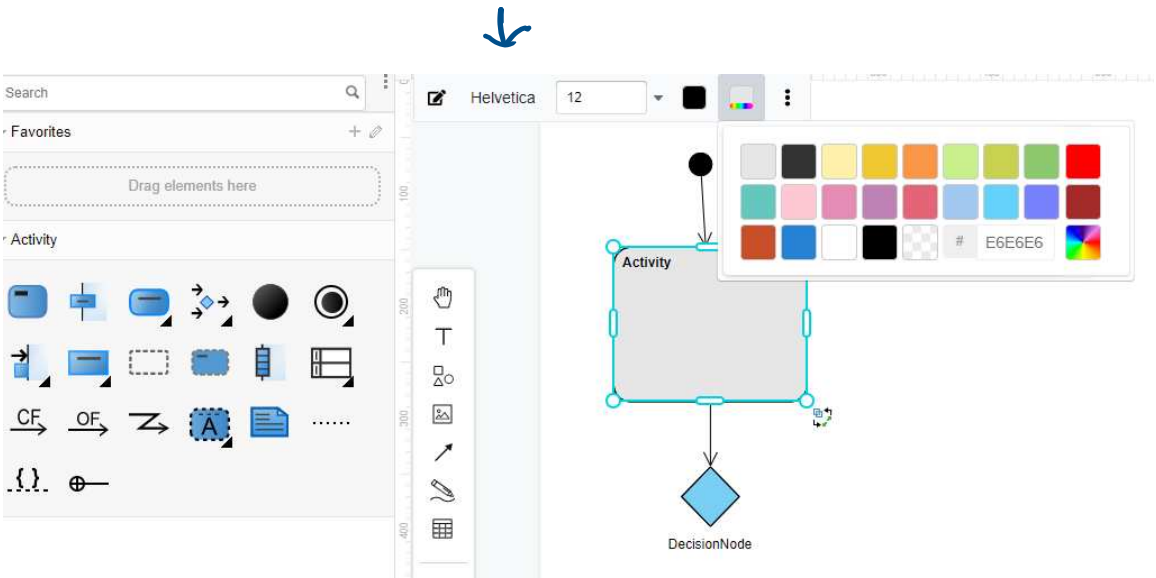
5. Click on the desired activity diagram notation(s) to add those on the main screen and create your use case diagram.



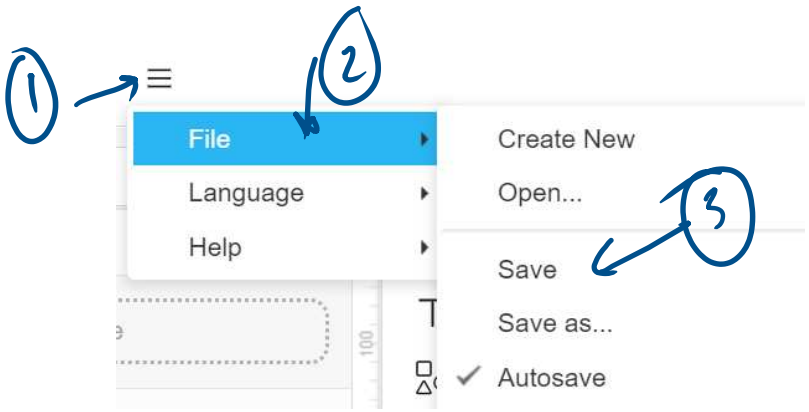
6. Before starting, select and add the ***Note*** element on top left to enter your enrolment number.



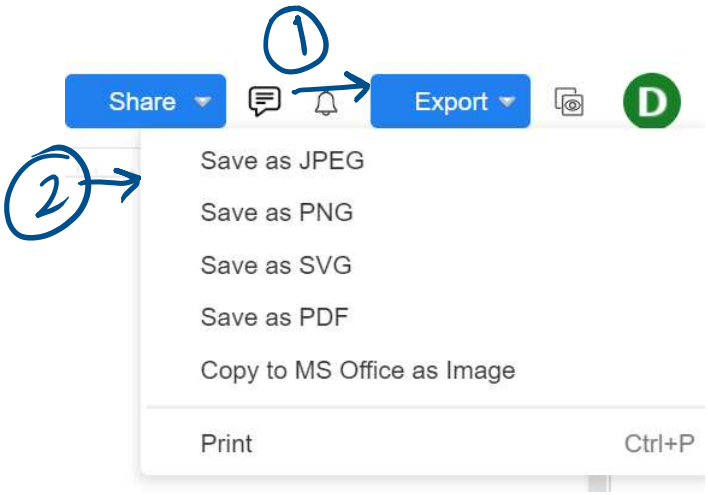
7. Use the formatting pane on the top to change the style (e.g., color, text) of the notations to make your diagram easy to comprehend by others. You can resize the shape by selecting and then dragging from corners.



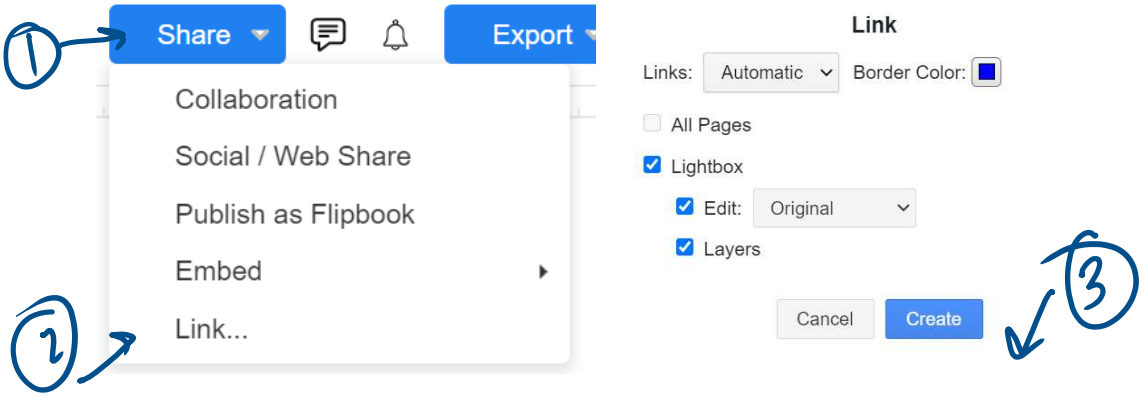
8. Save you diagram first and while saving select VP online option for storage.



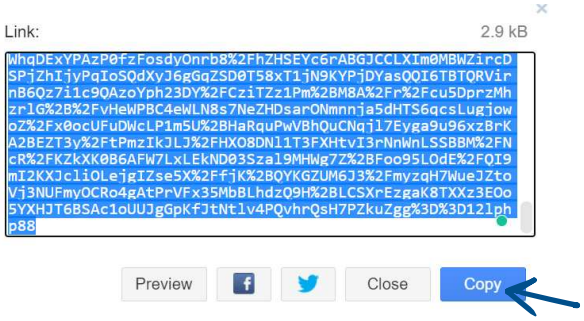
9. To save both of your diagram as an image, click on ***Export → JPEG.*** Save the image in your PC as ***"<enrolment>_lab07_activity1", "<enrolment>_lab07_activity2"***



10. Next, click on ***Share → link***. In next window, click ***create*** button.

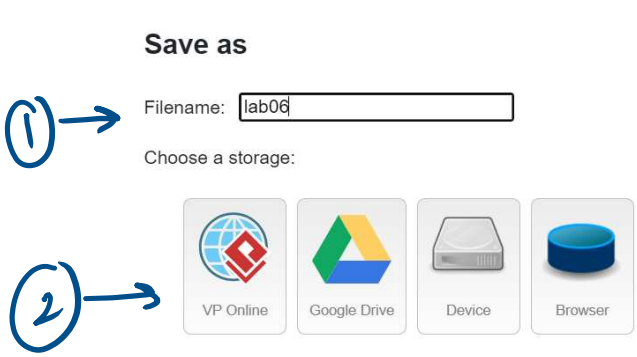


11. Copy the link by clicking ***Copy*** button and save it in a text file as ***"<enrolment>_lab07_link1", "<enrolment>_lab07_link2"*** for both the diagrams.



NOTE: This assignment is about developing UML diagrams. Hence, your UML notations (i.e., shapes, associations, etc) must be correct.

Make sure to save your work (select VP Online option) before leaving the screen (if you haven't saved it earlier).



Submit both the activity diagrams and two links in a text file (total four files) as your lab assignment. Make sure filenames are as suggested above.