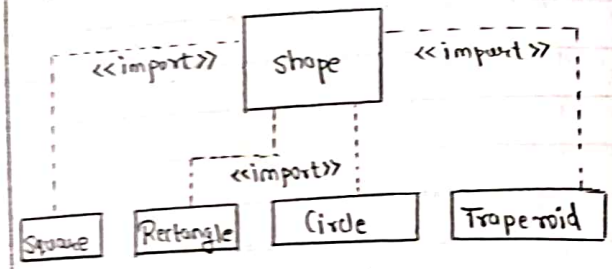
Experiment No. 2

Aim: Implement package diagram model & dynamic model in UML.



*package diagram *

Aim:	Implement package diagram model & dynamic model in UML.
Theory:	In UML, both package diagram for dynamic models play essential roles in visualization of many different aspects of software system.

Package diagram in UML : In a structural diagram that groups related classes, interfaces or subsystem into packages. It helps in organize system logically & manage dependencies between different parts of the system.

Elements :

i) Package : A group of related element usually shown as large rectangle with a smaller tab at the top.

ii) Dependencies : A dashed arrows that indicates that one package is dependent on another.

iii) Visibility : Show how classes or components inside a package are visible outside package.

Events in UML represents occurances at specific points in time. There are 3 types of events in UML:

1) Signal event : A one way transmission of information between the objects.
eg: Sending of R/T signals in a cable
UML notation : <> with signal attributes listed

2) Change event : Triggered when boolean expression evaluates from true or false / 0 or 1 if the expression is continously tested
eg: when battery power <lower limit>

3) Time event : Triggered by absolute time or a time interval
eg: when: date (date = March 2, 2025) or after (50 seconds)

UML notation : A rounded box with the state name optionally in bold & capatilized.

Conclusion: We have successfully studied & implemented package & dynamic model in UML.

Dynamic model in UML: The behaviour of the system's object interact & change the states. the system's executes focuses on the flow of control & sequence of the elements occur

Key Diagram:

i) Sequence Diagram: Show interaction between the objects use time, focusing on order of the messages enhanced

ii) Activity diagram: Focuses on flow of control flow, one activity to another within the system

iii) State Diagram: Shows how an object transi-ts between states in reponse to events

Conclusion: We have successfully studied & implemented package & dynamic model in UML

12/12/25