

* Laboratory Practice - IV (OOMD) - Experiment Number - 5.

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Title:-

Component Diagram.

Problem Definition:-

Draw component diagrams assuming that you will build your system reusing existing components along with a few new ones.

Prerequisite:-

Software Analysis Skills, Object Orientation and its development, Software Development life cycle, Types of diagram.

Software and Hardware Requirements:-

Visual Paradigm 17.0 / Star UML,
Windows 7 or above version or Linux,
RAM - 4Gb and more,
ROM - 128Gb and more.

Outcomes :-

- ① We will understand the concept of component diagram.
- ② We will learn to draw the component diagram for any system.

Theory :-

The purpose of a component diagram is to show the relationship between different components in a system. The term "component" refers to a module of classes that represent independent systems or subsystems with ability to interface with the rest of the system.

There exists a whole development approach that revolves around components: component-based development (CBD). In this approach, component diagrams allow the planner to identify the different components so the whole system does what it's supposed to do.

How to make a component diagram -

- I> Open a blank document or start with a template.
- II> Enable the UML shape library. Click "Shapes" on the left side of the editor, check "UML" in the shape ATM machine, and click "save".
- III> Select the shape you want from the ATM you added, and drag the shape from the toolbox to the canvas.

IV> Model the process flow by drawing lines between shapes.

A component diagram is similar to a class diagram in that it illustrates how items in a given system relate to each other, but components diagrams show more complex and varied connections that most class diagrams can.

In the diagram, each component is enclosed in a small box. The dotted lines with arrows show how some components are dependent on others. For example, the card reader, web page, client desktop, and ATM system are all dependent on the bank database. The dotted lines with circles at the end, known as "lollipop" symbols, indicate a realization relationship.

Conclusion:-

In this way, we learned how to draw a component diagram.