

**Subject Name:Software Engineering(CS-1606)**

**Topic Name:Object-Oriented Design Tool**

## **1. Introduction**

Object-Oriented Design tools are being employed extensively in designing of computing system or application. These tools are based on concept of objects for e.g. UML creator tool is used for modelling a system independent of platform and are being exploited to develop diagrams and provide users with ready-to-use, expressive models. We can easily find them in web applications, embedded systems etc.

## **2. Problem Statement**

In Object Oriented Designing tool, we will focus on designing an UML (Unified Modeling Language) diagram creator tool which aims at providing a fast way to create UML diagrams, exporting diagrams to clipboard and sharing diagrams using eclipse. With this tool we will be able to create our own custom UML elements.

## **3. Software/Hardware Requirements :**

### **Software Requirements:**

1. Netbeans/Eclipse IDE
2. JDK 8.0 or above
3. JRE 8.0 or above
4. Any text Editor
5. External Libraries of Java

### **Hardware Requirements:**

1. Dual -core 64-bit processor
2. 200 MB of memory
3. Network Interface Card

#### **4. Software Size Estimation :**

Estimated size of UML creator is 2.50 MB.

#### **5. Modules :**

<b>Name of Module</b>	<b>Estimated KLoC</b>	<b>Remarks</b>
GUI Implementation	9	In this module we will implement Outer GUI work that aims at providing an user friendly graphical user interface
Resizing/Auto Adjusting	4	This module will implement features of auto adjust of UML diagrams and resizing of window pane so that diagram does not change even if we resize our window pane.
Plug-in and Plug-in Dependencies	5	All the plug-in and plug-in dependencies that are needed for our tool will be added. Also,any additional plug-in that are required in Eclipse IDE will be added in this module.
UML elements and Standalone	4	UML elements that are required for our UML diagram are added in this module.
Linking	3	In this module all the

		modules mentioned above will be linked together to get our final software .Once all the modules are linked, we will check working of our software and perform various types of testing before realising the software.We will then implement other features if they are needed after testing is performed.
--	--	---

## **6. Testing Performed :**

### **1. GUI Testing :**

It aims at testing the GUI (Graphical User Interface) of the software. It checks whether it will meet the requirements as mentioned in the first module or not.

### **2. Performance Testing :**

It is performed to check quality attributes of our software like Stability, reliability, availability.

### **3. Compatibility testing :**

It aims at checking whether the software can be run on different hardware, operating system, web servers, application servers, hardware peripherals, emulators, processor, browsers and different versions of the browsers or not.

#### **4. Functional Testing :**

It focuses on testing the software against design document, use cases, and requirements specified in document. Here, we don't require internal working of our software.

#### **5. Beta Testing :**

It will be performed once all other testing is done on our software. We will perform it before releasing the software to end users. Once it is completed successfully, we will be ready to release our software to the end users.

#### **7. Estimated Lines of Code(KLoC) :**

Estimated KLoC of our software is around 25.

#### **8. Responsibilities of Team Members :**

<b>Name</b>	<b>Task Assigned</b>	<b>Signature</b>
Akshay Kumar Singh(20168020)	Designing and Coding	
Alok Kumar (20168093)	Maintenance	
Ananya Pandey (20168025)	Documentation,Resource Gathering & Specification	
Ankit Kumar Mishra(20168007)	Resource Analysis and Coding	
Ankit Mishra (20168047)	Documentation,Testing	

#### **9. References :**

1. [www.umlet.com/](http://www.umlet.com/)
2. [en.wikipedia.org/wiki/UML\\_tool](http://en.wikipedia.org/wiki/UML_tool)
3. [www.stackoverflow.com](http://www.stackoverflow.com)
4. **Similar Software available** : Dia UML creator, ArgoUML.

