Java - Core Concepts

1.Define the following terms with examples:

CLASS : class is a blueprint for creating an object in java. It defines variables ,method

OBJECT: object is instance of class which is created by class.

2. Differentiate between `method overloading` and `method overriding` in Java with examples.

Method overloading	Method overriding
In method over loading there is multiple method with same name and different parameter	Method having same name , parameters in one class inherit another class and having same method in both classes

Example : int add(int a,int b)
int add(int a,int b , int c)
	Example:
	Class A{
	  Int add(int a,int b)
	}
	
	Class B {
	
	Int add(int a,int b,int c)
	}

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3 . Explain the difference between `primitive` and `non-primitive` data types in Java, with examples.

Primitive data types: int,double, long,double long

Non -Primitive data types : Class,String ,Array

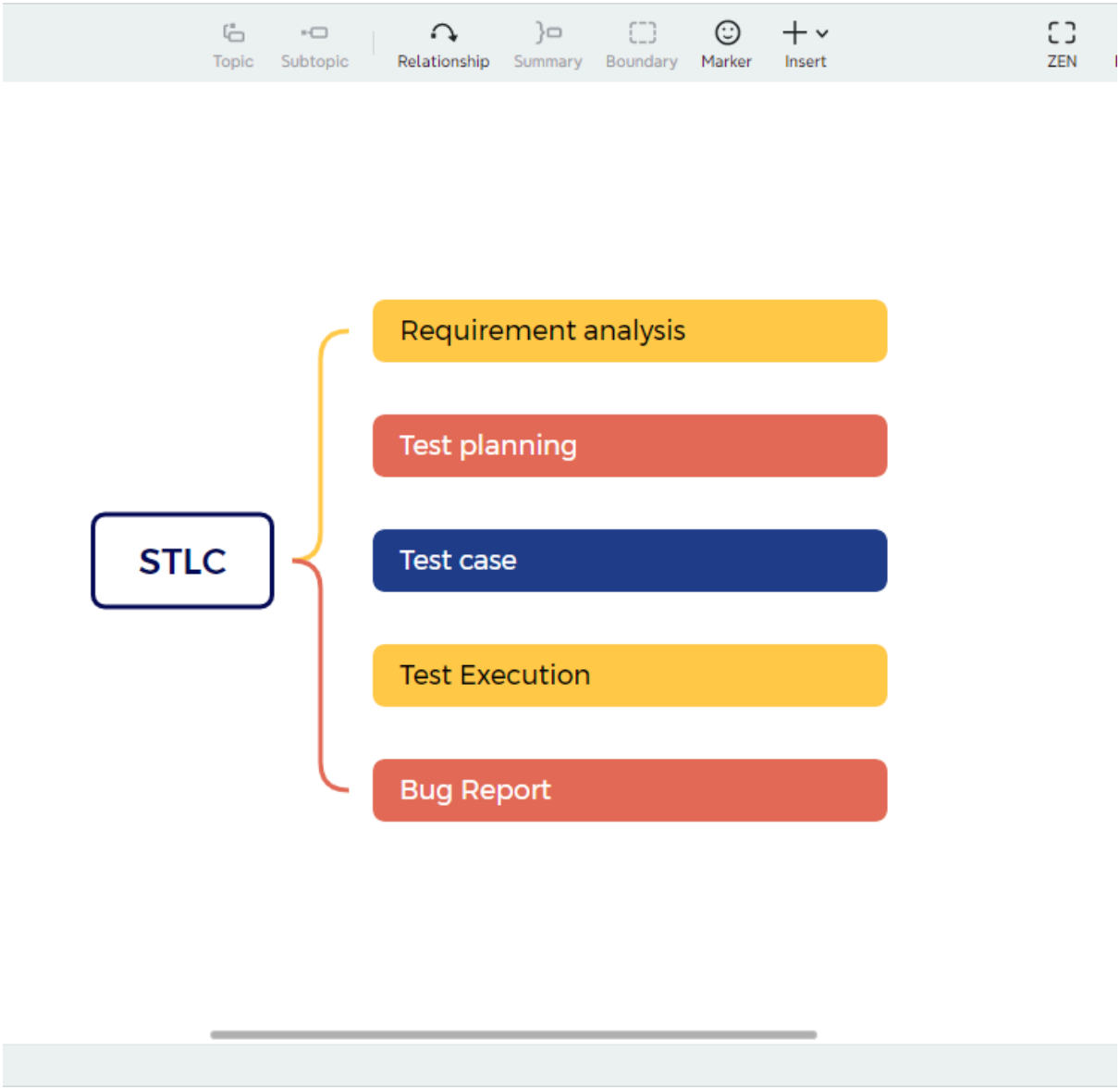
Software Engineering & Testing Concepts

5. Describe the Software Development Life Cycle (SDLC) and list all its phases briefly.

Answer):

1. Software development life cycles is a process in which whole software is developed step by step,there include following steps:
2. Requirement analysis: in this process all the requirement is collected from clients .
3. Planning: it 2nd step in which decided by team how will software developed whole planning is done i his phase.
4. Designing : the architecture of software is designed in this process.
5. Programming: developer will write a code for particular software according to design,plan , requirement.
6. Testing: after developing whole software the testing is next process in which tested how actually project is done.
7. Installation: is last step in which installation is done.

6 .Draw a mind map showing all stages of the Software Testing Life Cycle (STLC).



7. Differentiate between Functional Testing and Non-Functional Testing with 2 examples each.

Functional Testing	Non-functional testing
In this type of testing there is functional work is tested in which they analysed the working of functions of component.	In this type of testing non-functional testing is takes place it focuses on ui and ux of software

Example: if there is add to cart button in website which need to be add the cart after clicking the function is proper or not	Example: there is user interface is tested in which all element are aligned or not
Example 2: if there is function for sigh then button is worked or not	Example 2: images of all products should loaded properly.

8.What is a Test Plan? List key sections it should contain.

Test plan is step in software testing life cycle ,it is take place after requirement analysis .

After collecting all the requirement testing team plan for how to test

Key Sections:

1. Introduction
2. Scope: inscope and out-scope
3. Objective
4. Test environment
5. Types of testing : unit test, integrated test , system test
6. Test schedule
7. Test cases
8. roles/responsibility
9. risk/mitigation.

9. Design 5 Test Scenarios for the "Forgot Password" feature of an e-commerce website.

Forgot password

Scenario 1: To verify user can reset the password

Scenario 2: to verify the user got an email for password reset successfully.

Scenario 3: to verify that the forgot password button is clickable.

Scenario 4 : to verify that for changing password need to valid email

Scenario 5: to verify that user get email for set new password.

10.) Bug life cycle described the defect in the project .

New : the bugged is detected for first time then is it called new

Assigned : when a bug is assigned then it is called assigned.

Open : the developer work on it

Fixed: when after detect the bug then fixed it.

Closed : after detecting and solving the issues then it is called closed