1)

**PIPES AND FILTER:**

Compilers: The consecutive filters perform lexical analysis, parsing, semantic analysis, and code generation.

**CLIENT SERVER:**

The Services like GMail, Facebook, Yahoo, Google act as Servers.

Web or mobile client like login account of GMail or Facebook or Yahoo will act as Client.

**LAYERING:**

eBay and other eCommerce websites have layering architecture.

**REPOSITORIES:**

Google Drive

2)

* We can improve code reusability by using the same standardized language or tools across applications in an organization and also it is easy to update the system.
* if you go with one language then in future there is a chance that the language could become old/deprecated. Then it will be really difficult to update/migrate the whole system to other language.

3)

Test 1: The input values of form will be validated. I will test if all the mandatory fields all filled or not and if the values like financial details and tax amount are >=0 or not.

Testcase 2: I will test if the tax calculated is correct or not by using methods like assertEquals(). I will compare output value with estimated value.

Testcase 3: Check if the amount calculated is correct or not and also check if the values of federal, state, city taxes are correct or not.

4) Testing is related to failure. Testing is nothing but checking if the application is meeting all the requirements of not. If not, then it is a failure.

Debugging is finding the fault in the software that is leading to the failure of the application.