**5.3 Testing approach:-**

A test approach is the test strategy implementation of a project, defines how testing would be carried out.

**5.3.1 Unit Testing:-**

All the modules like registration, login, voter id verification, fingerprint authentication, face cam authentication and voting page will be test individual.

**5.3.2 Integration Testing:-**

In integration testing we are checking after successful registration user also able login into the app. Here we are checking once voter cast the vote the vote will get store into firebase database. Basically here we are checking all the modules are connected or not with each other.

**5.3.3 System Testing:-**

Here we are checking whatever input we are giving to the system and we are getting according output or not. Also The whole system working properly or not.

**5.3.4 Validating Testing:-**

Validation testing can be defined in many ways, but a simple definition is that validation succeeds when the software function in a manner that can be reasonably expected by the Users.

**5.3.5 Output Testing:-**

After performing the validation testing the next test is output testing of the proposed system since no system could be useful if it does not produce the required output in the specified format. Asking the user about the format required by them tests the outputs generated or displayed by the system under consideration. The output format on the screen is found to be correct as the format was designed in the system phase according to the user’s needs. Hence, output testing does not result in any correction in the system.

**5.3.6 User Acceptance Testing:-**

User acceptance of a system is the key factory for the success of any system. The system under consideration is tested for user acceptance by constantly keeping in touch with the perspective system.

**5.4 Modifications and Improvement**

After testing and finding all errors, exceptions and bugs, errors were solved by troubleshooting, exceptions were handled by try catch block at the correct places avoiding redundancy of code from model class. Bugs can never be removed completely but most of them are solved and remaining are under development.