➢ **Automation testing**

Testing on application features with the help of automation tool & execute test script is called as automation testing.

➢ **Disadvantage of Manual testing**
1. Compatibility testing is difficult
2. Test cycle duration will be increased
3. More efforts are required
4. Repetition testing is time consuming

➢ **Advantage of automation testing**
1. Reusability of test script
2. Compatibility testing is easy / possible.
3. Less human efforts are required
4. Project duration will be reduced
5. To overcome the drawback of regression testing
6. Cost of project will be reduced
7. It is reliable & efficient

➢ **Some of the Automation tool**
1. Selenium
2. QTP
3. Sahi / Sahi pro
4. Selendroid
5. Appium

➢ To run application in multiple browser (C.T) i.e., writing test script by using single browser but run the same script in multiple browser we need to use runtime polymorphism by using upcasting in selenium.

Web driver = new Chrome Driver ();

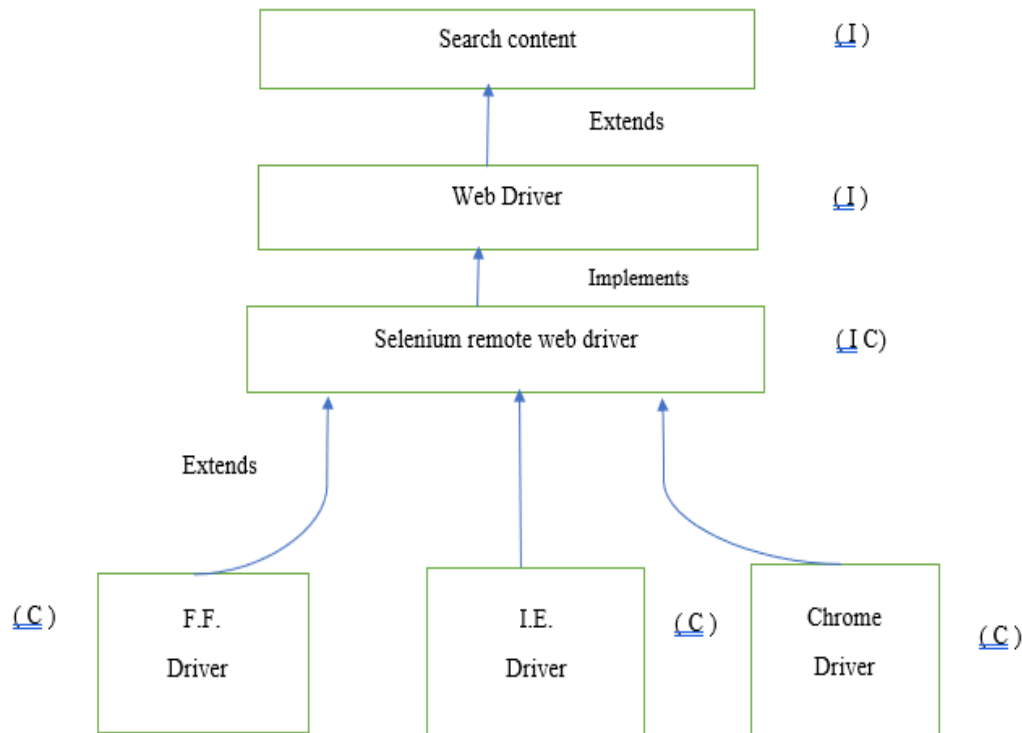**Create an object of Chrome Driver class with reference of web driver interface.**

Q. How to open a Browser in selenium.

System.set.property(" webdriver.chrome.driver", " path of .exe file");

Web driver = new chrome driver();

- **Create an object of chrome driver class & store it in 1 reference variable with reference of web driver interface.**
- **Define that we need of set path of chrome driver .exe file.**
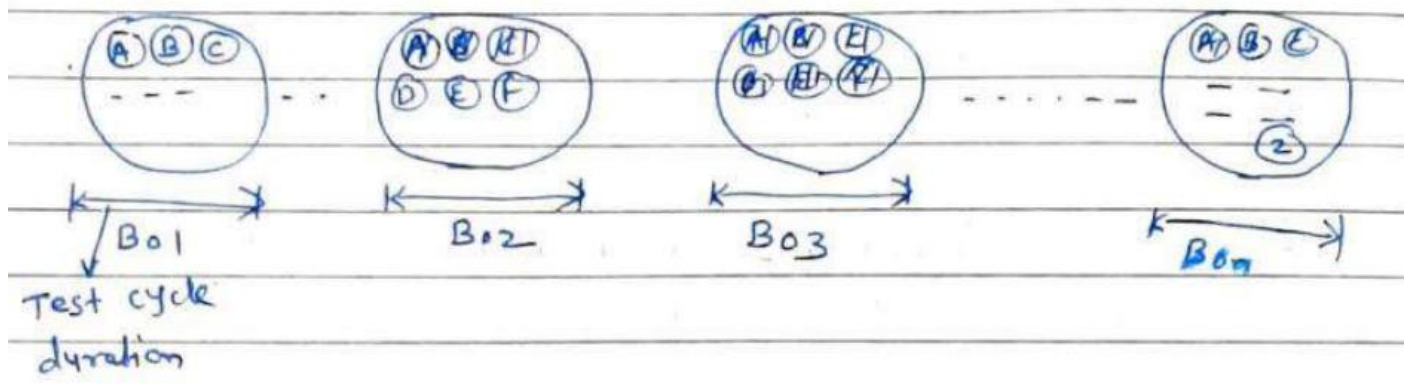
1. Selenium Architecture

1. Search content is a super most interface which contains abstracts method & inheritance to web driver.
2. Web driver is an interface which contains abstracts method of search context & its own abstract method.
3. All the abstract method are overridden or implemented in selenium remote web driver class.
4. Selenium remote web driver: - It is a class which implements all the abstract method of both interfaces.
5. Selenium remote web driver class is extended to browser such as F.F driver, Chrome driver… etc.

Selenium flavors

1. Selenium IDE (integrated development environment)
   o We can run script in only firefox browser
   o Record & playback option
   o We can't do compatibility testing
2. Selenium RC (remote control)
   o Support CT (Cross browser)
   o We can run script in java only.

3. Selenium webDriver (Selenium tool)
   - Support CT (Cross Browser)
   - We can run script in multiple language
4. Selenium grid
5. Selendroid

Q   when we should do automation testing?

Automation testing tool will able to perform testing an application but to perform any action as a TE we need to give command those command are called scripting.

➢ **Advantages of selenium**
1. Open source
2. Multi language support
3. Cross browser / compatibility is possible
4. Cross platform is auto platform

➢ **Disadvantage of selenium**
1. We can automate only web-based application
2. We can't automate stand-alone application.
3. Can't automate captcha.
4. Selenium will not support file uploading
5. Ad hoc test cases can't automate.
6. Can't read bar code.