TODAY'S AGENDA

➢ What is Automation Testing?

➢ Advantages and Disadvantages of Automation

➢ What is Java?

➢ Where is Java used?

➢ Java Features

➢ What is an IDE?

What is Automation Testing?

➢ Automation testing is the process of testing the software using an automation tools to find the defects. In this process, executing the test scripts and generating the results are performed automatically by automation tools.

Automation testing tools

➢ HP QTP(Quick Test Professional)/UFT(Unified Functional Testing)
➢ **Selenium**
➢ LoadRunner
➢ IBM Rational Functional Tester
➢ SilkTest
➢ TestComplete
➢ WinRunner
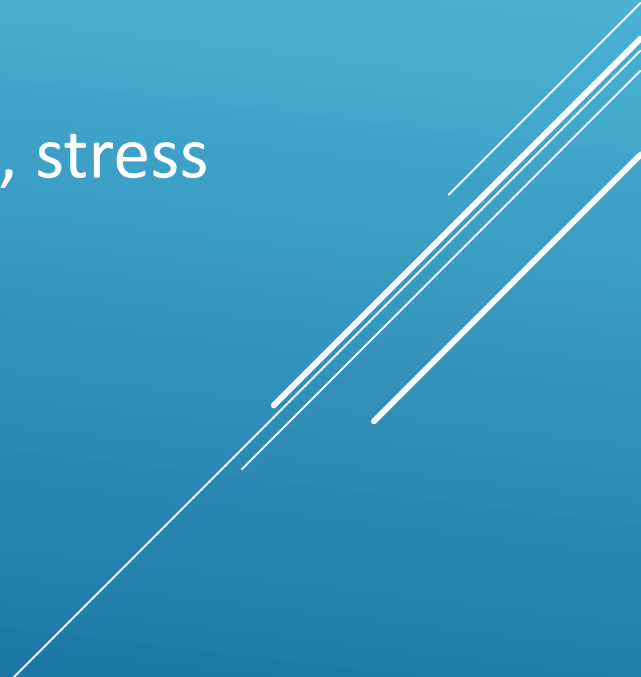➢ WATIR

When to use Automation Testing?

➢ Regression Testing:

➢ Load Testing:

➢ Performance Testing:

➢ Integration Testing:

➢ System Testing:

➢ Unit Testing:

➢ Acceptance Testing:

Which tests cannot be automated?

Tests cannot be automated. Test which take too much effort to automate are:

➢ Exploratory Testing

➢ User interface testing

➢ Adhoc Testing

When do you prefer Automation Testing over Manual Testing?

➢ To handle repetitive and time-consuming tasks

➢ When there is a need of parallel testing

➢ To do non-functional testing like load, performance, stress testing

➢ To avoid human errors

Advantages of automated testing

- Automation testing is faster in execution

- It is cheaper compared to manual testing in the long run

- Automated testing is more reliable

- Automated testing is more powerful and versatile

- It is mostly used for regression testing

- It is reusable because the automation process can be recorded

- Does not require human intervention. Test scripts can be run unattended

- It helps to increase the test coverage

Disadvantages of Automated Testing

➢ It is recommended only for stable products

➢ Automation testing is expensive initially

➢ Most of the automation tools are expensive

➢ It has some limitations such as handling captcha, getting visual aspects of UI such as fonts, color, sizes etc.,

➢ Huge maintenance in case of repeated changes in the requirements

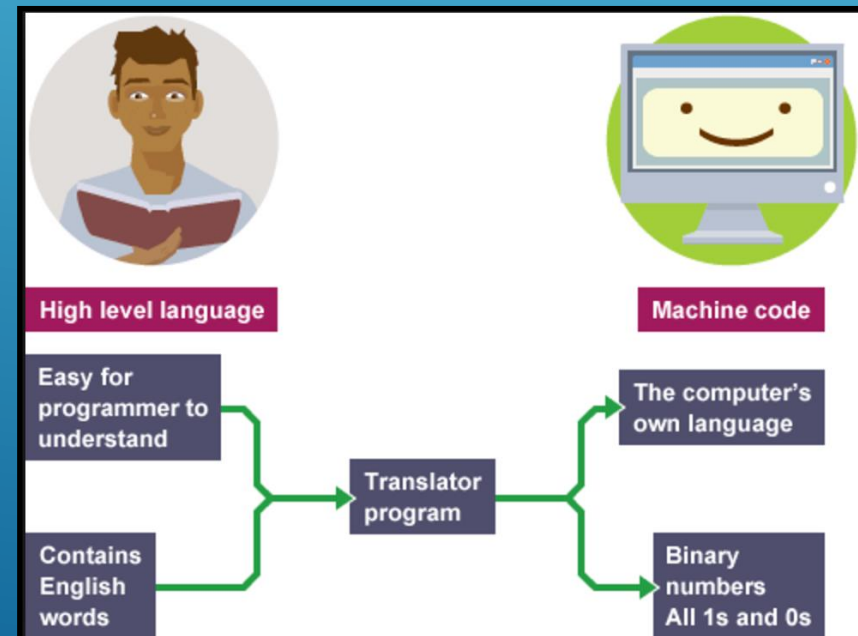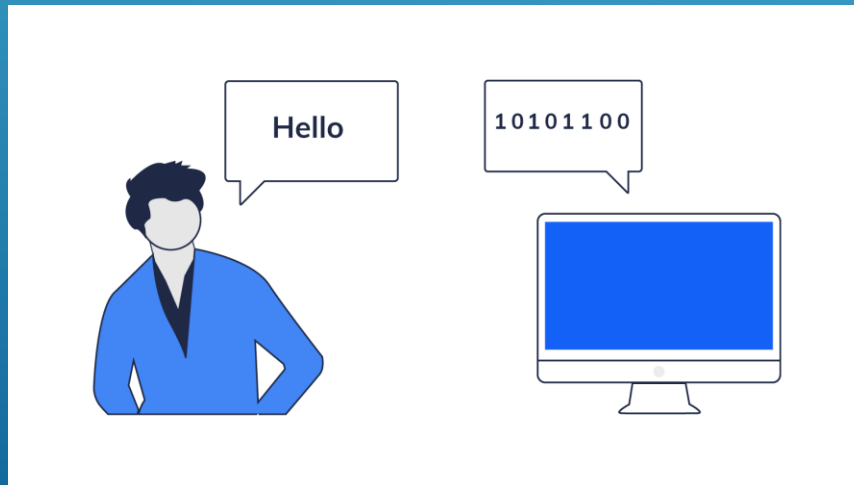| Automation Testing	Manual Testing
Automated testing is more reliable. It performs same operation each time. It eliminates the risk of human errors.	Manual testing is less reliable. Due to human error, manual testing is not accurate all the time.
Initial investment of automation testing is higher. Investment is required for testing tools. In the long run it is less expensive than manual.	Initial investment of manual testing is less than automation. Investment is required for human resources.
Automation testing is a practical option when we do regressions testing.	Manual testing is a practical option where the test cases are not run repeatedly and only needs to run once or twice.
Execution is done through software tools, so it is faster than manual testing and needs less human resources compared to manual testing.	Execution of test cases is time consuming and needs more human resources
Exploratory testing is not possible	Exploratory testing is possible
Performance Testing like Load Testing, Stress Testing etc. is a practical option in automation testing.	Performance Testing is not a practical option in manual testing
It can be done in parallel and reduce test execution time.	Its not an easy task to execute test cases in parallel in manual testing. We need more human resources to do this and becomes more expensive.
Programming knowledge is a must in automation testing	Programming knowledge is not required to do manual testing.
Human intervention is not much, so it is not effective to do User Interface testing.	It involves human intervention, so it is highly effective to do User Interface testing.

PROGRAMMING LANGUAGE

➢ Program:

- A set of instructions that are to be carried out by a computer.
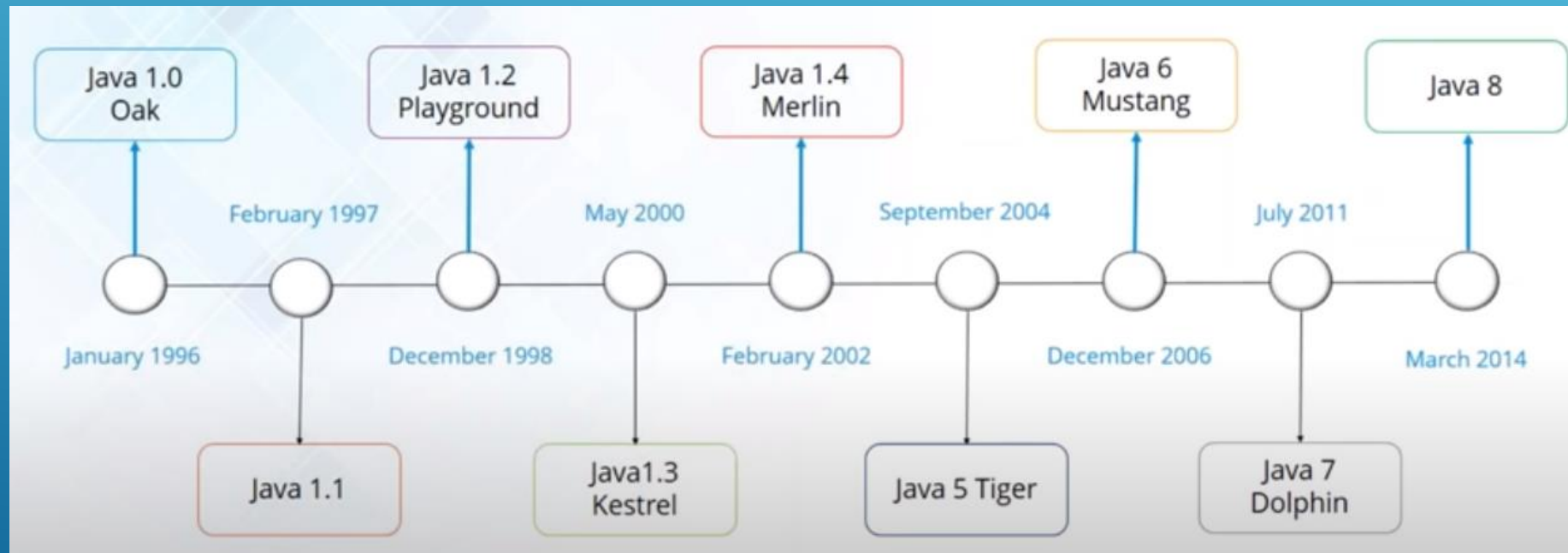
➢ Programming language:

- A systematic set of rules used to describe computations, generally in a format that is editable by humans.

- Forms a bridge between humans and machines (computers).

- Programming languages consist of a set to instructions that we give just like sentences or statements we say to another human being when communicating.

WHAT IS JAVA?

➢ Java was created by a team lead by James Gosling in 1995 for Sun Microsystems.

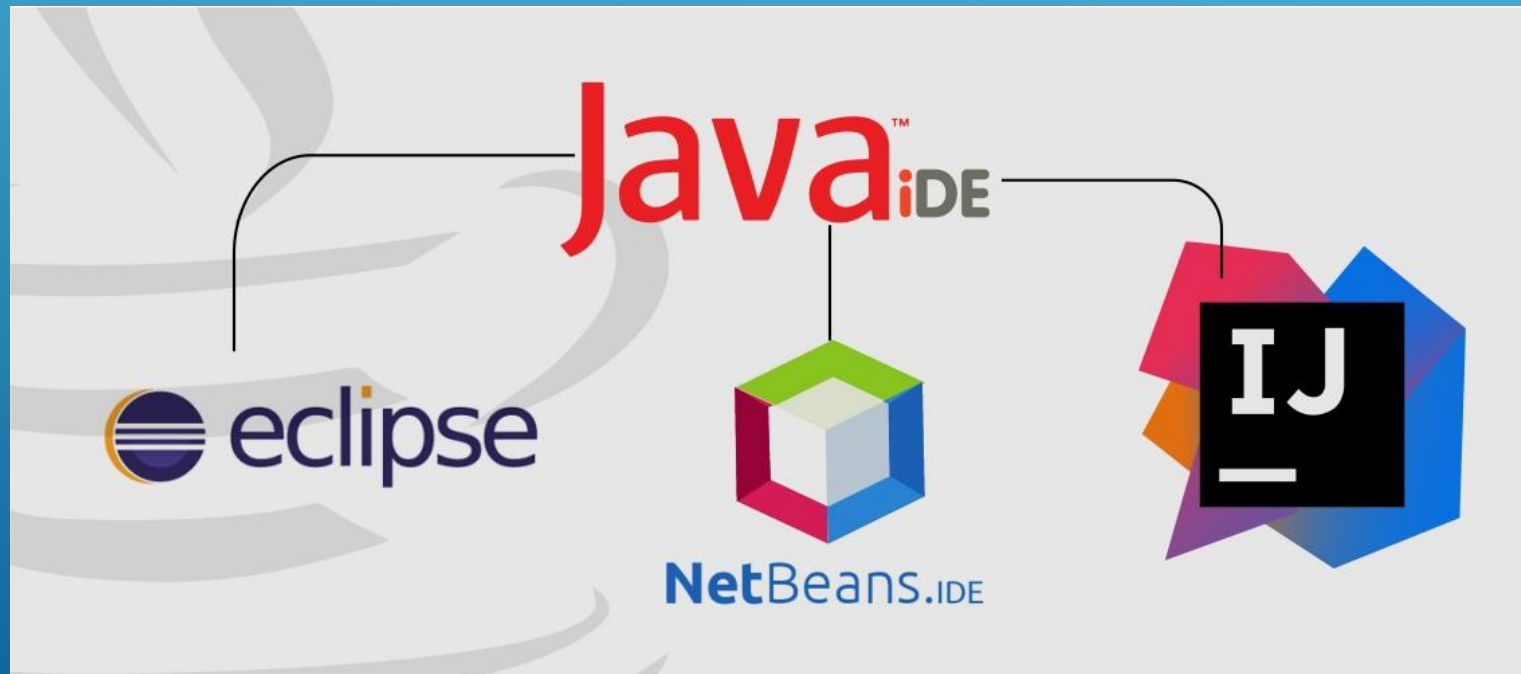➢ Java is a platform independent programming language – "Write once, Run anywhere".

WHERE IS JAVA USED?

JAVA FEATURES

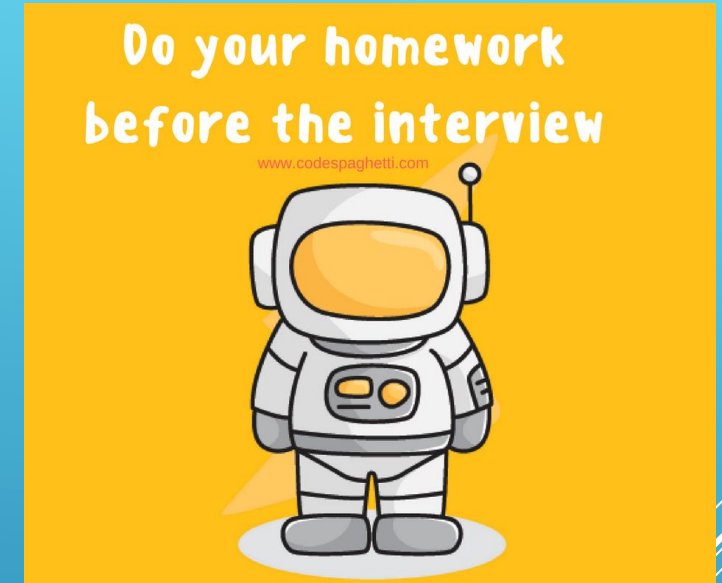# WHAT IS AN IDE?
(INTEGRATED DEVELOPMENT ENVIRONMENT)

➢ Software application that provides comprehensive facilities to computer programmers for software development .

➢ An IDE normally consists of source code editor, build automation tools and a debugger.

HOMEWORK

➢ Interview preparation for homework
   - Tell me about yourself?
   - What do you know about the company?
   - Revise all manual testing topics so far.

Jainik	TCS
Khyati	IBM
Krutik	Jaguar/Land Rover
Meghavee	AXA Insurance
Namrta	Bet365
Neepa	Tesco
Pragna	Parexel
Vaishali	MHR Global

Interview week:
21st March to 26th March

Do your homework
before the interview
www.codespaghetti.com