**Java**

* **Sec 1: Introduction to Java**

Java: Object oriented programming language

Types of programming languages:

1. Structured: C, Python.
2. Object based: VB, VBScript, Python.
3. Object oriented: C++, Java, C#, Python.

OOPS:

1. Class
2. Object
3. Polymorphism
4. Inheritance
5. Abstraction
6. Encapsulation

Features:

1. Platform Independent
2. Case sensitive

3 Components:

1. JDK: Java Development Kit
2. JRE: Java Runtime Environment
3. JVM: Java Virtual machine

Environment setup:

1. JDK/java
2. IDE (Eclipse, IntelliJIDE, etc)

Versions:

1. Java 8: Sun microsystem
2. Java 9: Oracle

Java 11+ preferable

Steps:

1. Create a new java project
2. Create a new java package
3. Create a new class

Class naming conventions:

1. Class name should start with Uppercase
2. Class name should not start with number
3. Class name contains \_ (Underscore)
4. Special characters are not allowed
5. Class name contains numbers

* **Sec 2: Java Variables and Data Types**

Variables & Data types:

Variables is a container which can hold data. To represent data we need variables.

int x=100

float itemprice=10.25

int age =30

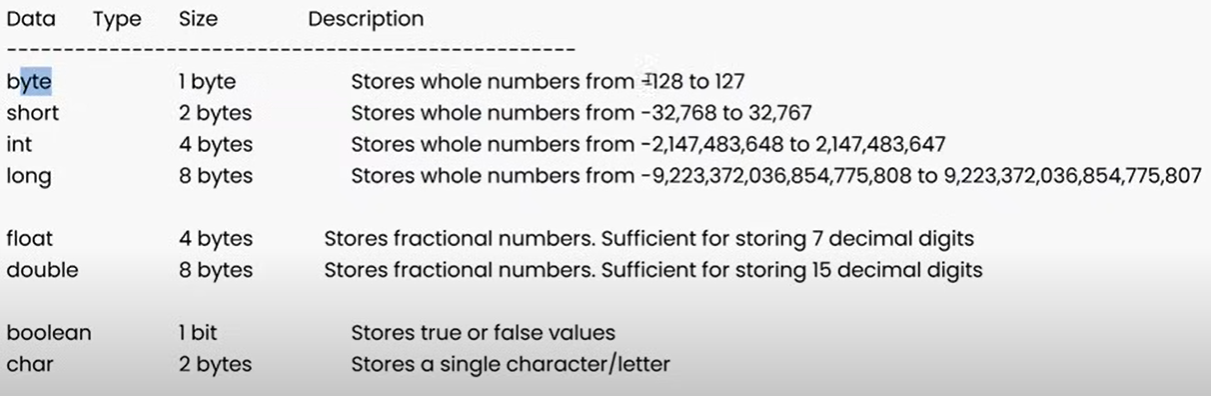
String name=”John”

char grad=’A’

Data Types:

Represents type of data

1. Premitive:
2. byte, short, int, long: number without decimal
3. float, double: decimal number
4. char: single character (single quote)
5. boolean: true/false
6. Non-premitive/derived/collections:
7. String
8. ArrayList
9. HashMap
10. HashSet



Java is a statically typed programming language

Python is a dynamically typed programming language