**Todays’ Topics:**

* Exception Handling
* OOPS (Object Oriented Programing System)

**Exception Handling:**

**Exception:** is runtime error which may or may not occur

**Handling:** tackle the error when exception will occur

Objective to exception handling:

* Show to user friendly message instead system defined error message
* Prevent the entire code/program from failure due to single or few errors
* Maintain and notify the error log

There are following inbuilt keywords:

* Try : logical code should be written inside try block
* Catch: receive or capture the error something went wrong in try block
* Finally: is block which will execute always either exception will occur or not (if finally block is present)
* Throw : raise the error, user defined error
* Throws: is alternate way to allow the code for compilation

Syntax:

try{

//logical code should be written in this block

}catch(ArithmeticException <ex>){

//error log , message

}

catch(ArrayOutOfBoundsException <ex>){

//error log , message

}

catch(Exception <ex>){

//error log , message

}

Note:

* We can implement multiple catch block with one try ,however Exception type should be at end if Exception type is present
* Either catch or finally , or both block should be present after try block (try cannot be implement without catch or finally block)

**OOPS (Object Oriented Programing System):**

Objective of OOPS:

* Reusability of source code
* Support to modular programing, so large or complex code can be written in small unit
* Easy to maintain the source code

There are following principals of oops:

* Class
* Object
* Constructor
* Encapsulation and data hiding
* Inheritance

Other Concepts:

* Polymorphism
* Abstract class
* Interface
* Access modifier
* Access specifier

**Class: is a wrapper of data member and methods or function**

Syntax:

Class Employee{

//data members

Int eid;

String name;

//methods

Public void newEmployee(){

}

Public void show(){

}

}

**Object: is an instance of class**

Syntax:

Employee e = new Employee() ; //here e is an object of class Employee, and new is keyword which allocate the memory of class Employee, Employee() invokes to default constructor