Enum

An enum is a special "class" that represents a group of p**redefined constants**.

 The variable must be equal to one of the values that have been predefined for it.

each constant is public, static and final

it can be variables, objects

separate the constants with a comma.

Note that they should be in uppercase letters:

All enums implicitly extend java.lang.Enum and as Java does not support Multiple Inheritance, an enum cannot extend anything else.

examples

directions (values of NORTH, SOUTH, EAST, WEST)

weedays(values of MONDAY,TUESDAY,WEDNESDAY,THURSDAY,FRIDAY,SATURDAY,SUNDAY)

Enum vs Class

An enum can, just like a class, have attributes and methods.

The only difference is that enum constants are public, static and final (unchangeable - cannot be overridden).

An enum cannot be used to create objects.

It cannot extend other classes

It can implement interfaces

In the Java programming language, you define an enum type by using the enum keyword. For example, you would specify a days-of-the-week enum type as:

public enum Day {

SUNDAY, MONDAY, TUESDAY, WEDNESDAY,

THURSDAY, FRIDAY, SATURDAY

}

like any other Variable/Object we can make enum as datamember of a class & pass it to the constructot/methods.

public class EnumTest

{

Day day;

public EnumTest(Day day) {

this.day = day;

}

public void display()

{

switch (day) {

case MONDAY:

System.out.println("Mondays are bad.");

break;

case FRIDAY:

System.out.println("Fridays are better.");

break;

}

}

class DriverApp{ psvm(..){

EnumTest firstDay = new EnumTest(Day.MONDAY);

firstDay.display();

EnumTest lastDay = new EnumTest(Day.FRIDAY);

thirdDay.display();}}

enum Level {

LOW,

MEDIUM,

HIGH

}

Level myVar = Level.MEDIUM;

---

enum in switch

switch(myVar) {

case LOW:

System.out.println("Low level");

break;

case MEDIUM:

System.out.println("Medium level");

break;

case HIGH:

System.out.println("High level");

break;

}

**Loop through an enum**

for (Level myVar : Level.values()) {

System.out.println(myVar);

}

**Ordinal Value**

enum Level {

LOW, index value = 0

MEDIUM, index value = 1

HIGH index value = 2

}

psvm(..)

Level l1=Level.MEDIUM;

System.out.println(l1. ordinal()) //output 1