20001292

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1)

import scala.compiletime.ops.string

import scala.compiletime.ops.double

import scala.io.StdIn.readDouble

def interest(n: Double):Double=n match{

    case x if x>2000000 => x\*0.065;

    case x if x>200000 => x\*0.035;

    case x if x>20000 => x\*0.04;

    case x if x>0 => x\*0.02;

}

def main(args: Array[String])={

    print("Enter the amount: ");

    var num= readDouble();

    println("Interest = "+interest(num));

    println("Total value = "+(num+interest(num)));

}

2)

case class cart(name:Array[String], price:Array[Double],qty:Array[Int]);

var cart1=cart(Array("vanilla ice cream","chocolate biscuits","cupcakes"),Array(3.99,4,7.77),Array(13,6,7));

def displayCart(l:Int)={

    var i=0;

    for( i <- 0 to (l-1)){

        println(cart1.qty(i)+" "+cart1.name(i)+" at Rs"+cart1.price(i)+" each");

    }

}

def onlyVanilaIce(l:Int)={

    var i=0;

    for( i <- 0 to (l-1)){

        if(cart1.name(i)=="vanilla ice cream"){

            println(cart1.qty(i)+" "+cart1.name(i)+" at Rs"+cart1.price(i)+" each");

        }else{

            println("FOUND ANOTHER ITEM");

        }

    }

}

def main(args: Array[String])={

    val len=cart1.name.length;

    displayCart(len);

    onlyVanilaIce(len);

}

3)

import scala.language.implicitConversions;

case class Car(name:String,price:Double);

class caruuid(car: Car){

    def uuid: String =s"car uuid = ${car.name} - ${car.name.hashCode}";

}

object carnames{

    implicit def uuid(car:Car):caruuid = new caruuid(car);

}

import carnames.\_

val bmw3 = Car("bmw 3 series", 20000);

val bmw5 = Car("bmw 5 series", 50000);

val vwPassat = Car("vw passat", 10000);

val vwGolf = Car("vw golf", 12000);

val mazda3 = Car("mazda 3", 15000);

def main(args: Array[String])={

    val list= List(bmw3,bmw5,vwPassat,vwGolf,mazda3);

    list.foreach(car=>println(car.uuid));

}

4)

import scala.io.StdIn.readInt;

def EorO(x:Int)={

    if(x%2==0)

        println("Even number");

    else

        println("Odd number");

}

def main(args: Array[String])={

    var n= readInt();

    n match{

        case x if x<=0 => {

            println("Negative/Zero");

            EorO(x);

        }

        case x if x>0 => EorO(x);

    }

}

5)

def toUpper(txt:String):String={

    txt.toUpperCase();

}

def toLower(txt:String):String={

    txt.toLowerCase();

}

def nothing(x:String):String=x;

def formateNames(name:String)(method: String => String):String={

    method(name);

}

def main(args: Array[String])={

    println(formateNames("Benny")(toUpper(\_)));

    println(formateNames("Niroshan")(nothing(\_)));

    println(formateNames("Saman")(toLower(\_)));

    println(formateNames("Kumar")(nothing(\_))+formateNames("a")(toUpper(\_)));

}