FUNDAMENTALS OF COMPUTER PROGRAMMING

LAB 03

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TASK 01:

Start

Use Variables height, width

Display “Enter the height (feet):”

Display “Enter the width(feet):”

Accept height, width

Area of Paint to be used: height\*width

Compute Amount of paint used = Area of paint to be used / 150

Display Area of paint to be used

End

TASK 02:

Start

Use variables assignment\_marks, exam\_marks

Display “Assignment mark (0 to 100):”

Display “Exam mark (0 to 100):”

Accept assignment\_marks, exam\_marks

Compute assignment\_marks = assignment\_marks \* 0.4

Compute exam\_marks = exam\_marks \* 0.6

Compute TotalMarks = assignment\_marks + exam\_marks

Display “TotalMarks =”

End

TASK 03:

Start

Use Variables GST, pre-GST, price\_including\_GST

Display “Pre-GST price (Rs):”

Accept Pre-GST

Compute GST = Pre-GST \* 10/100

Display “GST =”

Compute price\_including\_gst = GST + pre\_GST

Display “price\_including\_GST =”

End

TASK 04:

Start

Use variables volume\_used, cost, customer\_type

Accept volume\_used

Display “customer\_type =”

Accept customer\_type

IF customer\_type = Domestic

THEN cost = 100 + (1 \* volume\_used)

Print cost

ELSE cost = 100 + (1.2 \* volume\_used)

Print cost

End

TASK 05:

Start

Use variables gross\_income, no\_of\_dependents, income\_tax, gross\_income\_after\_tax

Display “Enter the gross income: “

Accept gross\_income, no\_of\_dependents

Compute income\_left = gross\_income - 10000 - (2000 \* no\_of\_dependents)

Compute income\_tax = income\_left \* 0.2

Display “income\_tax:”

Compute gross\_income\_after\_tax = income\_left – income\_tax

End

TASK 06:

Start

Use variables radius, diameter, circumference, area

Display “Enter the radius: “

Accept radius

IF radius <= 0

THEN display “Enter the radius: “

ELSE

Compute diameter = radius \* 2

Print diameter

Compute circumference = 3.14 \* radius

Print circumference

Compute area = 3.14 \* radius \* radius

Print area

IF area < 15

Then print “Circle is small”

ELSE

Print “Circle is Large”

End IF

End IF

TASK 07:

Start

Use variables monthly\_investment, yearly\_interest\_rate, no.of\_years\_invested

Display “Enter the monthly\_investment:

Display “Enter the yearly interest rate (%):”

Display “Enter the no. of years invested:”

Accept monthly\_investment, yearly\_invested\_rate, no.of\_years\_invested

Compute future\_value = monthly\_investment \* [(yearly\_interest\_rate / 100) + 1)^no.of\_years\_invested

Display future\_value

End

TASK 08:

Start

Accept number

Display a,b

b =1

FOR (a = number; a <= (12 \* number); a = a+ number)

Compute a \* b

Print a \* b

b= b+1

End

TASK 09:

Start

Accept variable m

Repeat

Print “Enter the month number =”

Until m >12 or m<0

IF m == 1 or 3 or 5 or 7 or 8 or 10 or 12

THEN Display “Number of days: 31”

IF m== 4 or 6 or 9 or 11

THEN Display “Number of days: 30”

ELSE IF m==2

THEN Display “Number of days: 28”

END IF

END IF

TASK 10:

In case of a leap year, February has 29 days. A leap year comes after every 4 years. So in order to make a program more efficient the program may ask the user at the start of a program whether the year is a leap year or not.

The END