**Ruby Programming**

**Lab -1**

**Name:** Adithya S.T.

**Reg No:**18MIS1025

**Question 1:**

1. A farmer is asking you to tell him how many legs can be counted among all his animals. The farmer breeds three species:

chickens = 2 legs

cows = 4 legs

pigs = 4 legs

The farmer has counted his animals and he gives you a subtotal for each species. Accept number of chickens, cows and pigs and return the total number of legs

**Code:**

puts("Enter no of chickens,cows and pigs")

chickens=gets.to\_i

cows=gets.to\_i

pigs=gets.to\_i

total\_no\_of\_chickens=chickens\*2

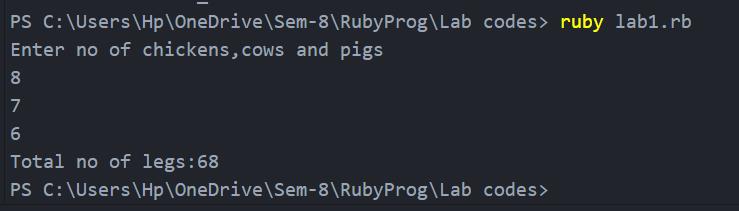
total\_no\_of\_cows=cows\*4

total\_no\_of\_pigs=pigs\*4

total\_of\_all\_legs=total\_no\_of\_chickens+total\_no\_of\_cows+total\_no\_of\_pigs

puts("Total no of legs:"+total\_of\_all\_legs.to\_s)

**Output:**

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**2. Write a program that finds the maximum range of a triangle's third edge, where the side lengths are all integers.**

**Notes**

**(side1 + side2) - 1 = maximum range of third edge.**

**Code:**

puts("Input all the length of the slides")

side1=gets.to\_i

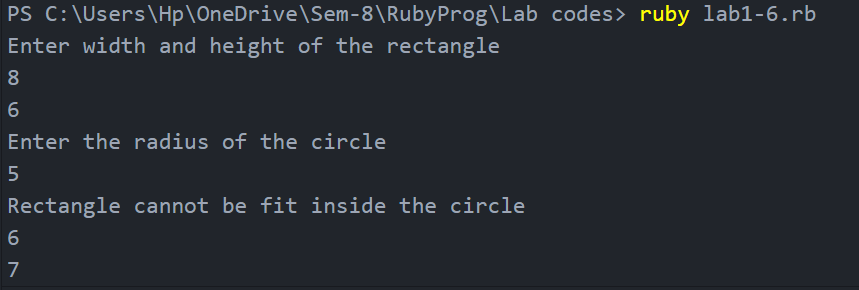
side2=gets.to\_i

side3=gets.to\_i

max\_range\_of\_third\_edge=(side1+side2)-1

puts("Maximum range of third edge:"+max\_range\_of\_third\_edge.to\_s)

**Output:**

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**3. Write a program to calculate the days for a given age. Age will be a whole numbers**

**Code:**

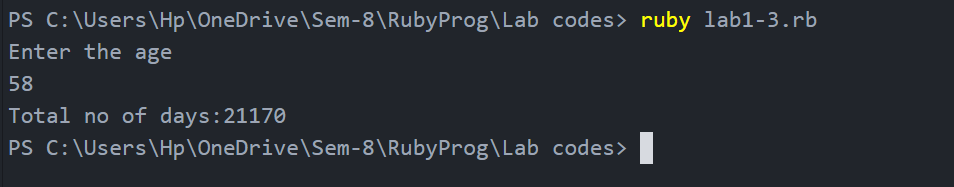
puts("Enter the age")

age=gets.to\_i

days=age\*365

puts("Total no of days:"+days.to\_s)

**Output:**

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**4. Write a program to convert the second into minutes and days into months ( assume all the months are having 30 days)**

**Code:**

puts("Enter the no of seconds")

seconds=gets.to\_i

minutes=seconds/60

puts("No of minutes is:"+minutes.to\_s)

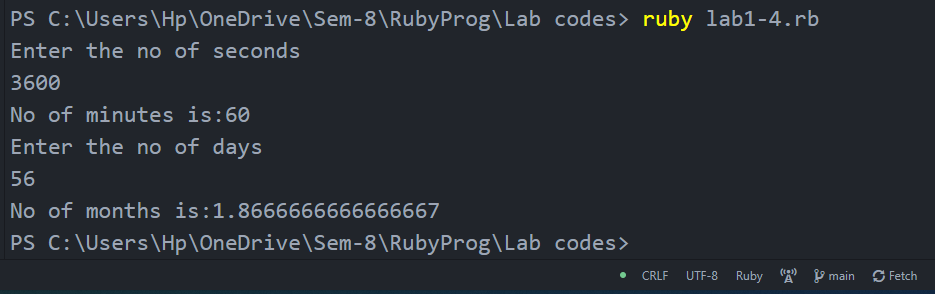
puts("Enter the no of days")

days=gets.to\_f

months=days/30

puts("No of months is:"+months.to\_s)

**Output:**

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**5. An university is setting up a new lab at their premises. Design an algorithm and write Python code to determine the approximate cost to be spent for setting up the lab. Cost for setting the lab is sum of cost of computers, cost of furnitures and labour cost. Use the following formulae for solving the problem:**

**Cost of computer = cost of one computer \* number of computers**

**Cost of furniture = Number of tables \* cost of one table + number of chairs \* cost of one chair**

**Labour cost = number of hours worked \* wages per hour**

**Code:**

puts("Enter the cost of one computer")

cost\_one\_pc=gets.to\_i

puts("Enter the no of computers")

cost\_no\_pc=gets.to\_i

cost\_of\_all\_pc=cost\_one\_pc\*cost\_no\_pc

puts("Cost of all computers:"+cost\_of\_all\_pc.to\_s)

puts("Enter No of tables")

tables=gets.to\_i

puts("Enter the cost of one table")

cost\_of\_one\_table=gets.to\_i

puts("Enter the no of chairs")

no\_of\_chairs=gets.to\_i

puts("Enter the cost of one chair")

cost\_of\_one\_chair=gets.to\_i

cost\_of\_furniture=(tables\*cost\_of\_one\_table)+(no\_of\_chairs\*cost\_of\_one\_chair)

puts("Cost of all furnitures"+cost\_of\_furniture.to\_s)

puts("Enter no of hours worked")

no\_of\_hours\_worked=gets.to\_i

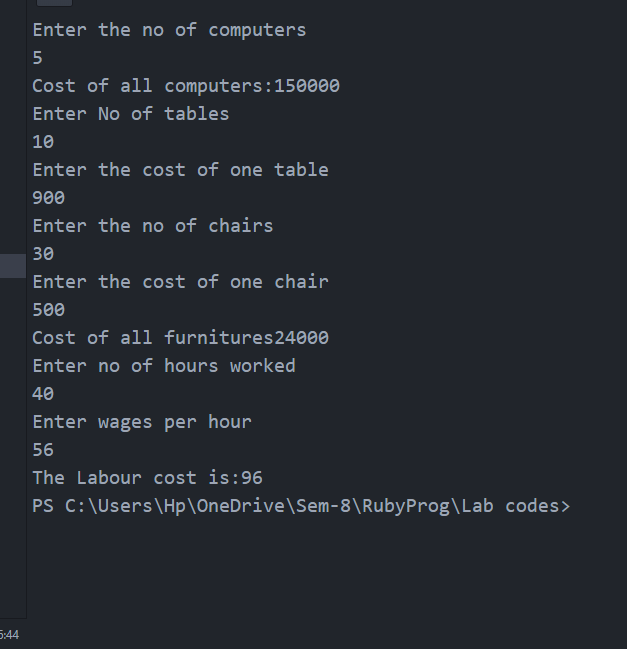
puts("Enter wages per hour")

wages\_per\_hour=gets.to\_i

labour\_cost=no\_of\_hours\_worked+wages\_per\_hour

puts("The Labour cost is:"+labour\_cost.to\_s)

**Output:**

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**6. Write a program that takes three numbers — the width and height of a rectangle, and the radius of a circle and returns true if the rectangle can fit inside the circle, false if it can't.**

**8, 6, 5 -> true**

**5, 9, 5 ➞ false**

**4, 7, 4➞ false**

**Code:**

puts("Enter width and height of the rectangle")

width=gets.to\_i

height=gets.to\_i

puts("Enter the radius of the circle")

radius=gets.to\_i

s=width\*width+height\*height

diagnol=Math.sqrt(s)

diameter=2\*radius

if diameter>=diagnol

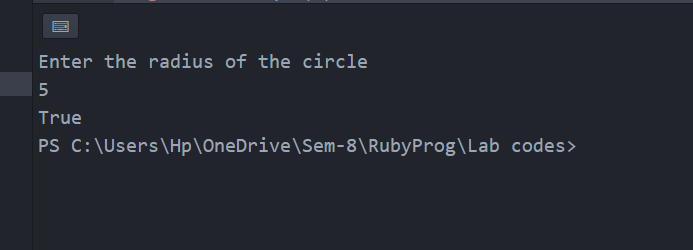
puts("True")

else

puts("False")

end

**Output:**

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