RUBY PROGRAMMING LAB-5

NAME: S KAMALESH KUMAR

REG NO: 18MIS1080

Create a class for student with the instance variables. : **Register number, name, number of credits completed, no of arrears.** Define a class variable **total credit to be completed**  in the class which is common to all the instances. Write a program for the below operation:

* Create two objects with the parameterized constructor to initialize instance variables. Accept the values from the user and pass as arguments for the constructor.
* Define **Attr\_Accessor** for all instance variables to retrieve and set the value.
* Find and display number of credits yet to finish by each students and semesters required . Assume student can complete maximum of 22 credits per semester. ( Don’t write a member function inside the class. Use **Attr\_Accessor for retrieving value)**
* Find and display the student name with the less number of arrears (Don’t write a member function inside the class. use **Attr\_Accessor for retrieving value)**
* Find and display the student name who completed more credits. (Don’t write a member function inside the class.use **Attr\_Accessor for retrieving value)**

Code:

class Students

@@overallcredits = 100

@@ct = 0

@@array = []

attr\_accessor :regno,:name,:n\_cred\_comp,:n\_arrear,:have\_comp,:yet\_comp,:max\_credits,:nam,:more\_credits,:name1

def initialize(reg\_n,name,n\_cred\_comp,n\_arrear)

@regno = reg\_n

@name = name

@n\_cred\_comp= n\_cred\_comp

@n\_arrear = n\_arrear

@@ct+=1

end

def calculate()

if(@n\_cred\_comp < @@overallcredits)

@a = (@n\_cred\_comp/22).to\_i

@b = @n\_cred\_comp%22

@yet\_comp = @@overallcredits - (@a\*22) - @b

@have\_comp = (@yet\_comp/22).to\_i

if(@yet\_comp%22 != 0)

@have\_comp+=1

end

end

@p=[]

@p.push(@name)

@p.push(100-@yet\_comp)

@p.push(@n\_arrear)

@@array.push(@p)

end

def arrear()

@max\_credits = 0

@nam = ""

@more\_credits = 0

@name1 = ""

for val in 0...@@ct do

if(@@array[val][2]>@max\_credits)

@max = @@array[val][2]

@nam = @@array[val][0]

end

end

for val in 0...@@ct do

if(@@array[val][1]>@more\_credits)

@more\_credits = @@array[val][1]

@name1 = @@array[val][0]

end

end

end

end

puts("Enter values for the first student:-->")

print("reg.no: ")

reg\_n = gets().to\_i

print("Name:")

name = gets()

print("Number of credits completed:")

n\_cred\_comp= gets().to\_i

print("Number of arrear:")

n\_arrear = gets().to\_i

s = Students.new(reg\_n,name,n\_cred\_comp,n\_arrear)

print("Enter values for the 2nd student:-->")

print("reg.no:")

reg\_n = gets().to\_i

print("Name:")

name= gets()

print("Number of credits completed:")

n\_cred\_compc = gets().to\_i

print("Number of arrear:")

n\_arrear = gets().to\_i

s1 = Students.new(reg\_n,name,n\_cred\_comp,n\_arrear)

s.calculate()

s1.calculate()

s1.arrear()

print("#{s1.nam} had maximum arrear of #{s1.max\_credits}")

print("#{s1.name1} have credits completed of #{s1.more\_credits}")

print("Semester required for #{s.name} to complete all courses is: #{s.have\_comp}")

print("Semester required for #{s1.name} to complete all courses is: #{s1.have\_comp}")

Output:

