**Quiz 1 (Answers) Abhinav Ponnala**

1.Write a Ruby Program to compute that takes input number from a user and prints All Fibonacci Numbers Upto that number. Your program should validate if the user provided input is a number or not.

First n Fibonacci numbers first using loop.

Second, write the same program using Recursion.

Ans: : #!usr/bin/env ruby

print "How many number do you want: "

a=0

while a<2

a=Integer(gets.chomp)

end

fibs = [1, 1]

for x in 2..a

fibs << fibs[x-1]+fibs[x-2]

end

print fibs

puts

by using recursion:

puts " Fibonacci using recursion"

def fibonacci(n)

return n if (0..1).include? n

(fibonacci(n-1)+fibonacci(n-2))

end

puts fibonacci(5)

2. Write a Ruby program to find a number is prime or not.

Ans: : #!usr/bin/env ruby

puts "welcome to prime number check"

puts "enter number for check: "

n = gets

n = n.to\_i

def prime(n)

puts "That's not an integer." unless n.is\_a? Integer

is\_prime = true

for i in 2..n-1

if n % i == 0

is\_prime = false

end

end

if is\_prime

puts "#{n} is prime!"

else

puts "#{n} is not prime."

end

end

prime(6)

3. Write a Ruby program using Recursion to print the Factorial of a number

Ans: : #!usr/bin/env ruby

def factorial1(num)

if num < 0

return "Please use a positive number"

end

if num <= 1

1

else

num \* factorial1(num-1)

end

end

puts factorial1(3)

4. Write a Ruby program thatPrints all permutations of a string using loops

for example, if input to program is xyz, the program prints x, xy,xyz,y,yz,xyzetc

Ans

def permute(result,input)

if(input.length == 0)

return

end

if(input.length == 1)

puts result + input[0]

return

end

if(input.length == 2)

puts result + input[0] + input[1]

puts result + input[1] + input[0]

return

end

(0...input.length).step(1).each do |i|

firstpart = result+input[i]

secondpart = (i > 0 ? input[0..(i-1)] : '') + (input[(i+1)..-1] || '')

permute(firstpart,secondpart)

end

end

permute('',gets.chomp)

5. Ruby rogram to reverse a string.

Ans: : #!usr/bin/env ruby

a = "abcdefgh"

a.reverse!

puts a

6. Ruby program that takes a image url(http://www.bacteriainphotos.com/photo%20gallery/mrsa%20picture.jpg )and prints it's height and width.

Hint: use fast image

<https://github.com/sdsykes/fastimage>

7. Write a program to print the top store in reddit.

HINT: reddit.com/.json

8. Write a Ruby program to sort an array.

Ans: #!usr/bin/env ruby

def sortedlist(array,reverse = false)

if

reverse == false

array.sort {|a,b| a<=>b}

else

array.sort {|a,b| b<=>a}

end

end

names = ["abhinav","rakesh","uday","vamsi"]

puts "In proper order: #{sortedlist(names,true)}"

puts "In backwards order: #{sortedlist(names)}"

9. Write a Ruby program to convert all the elements of an array to a single string.

Ans: my\_array = ["a", "b", "h","i","n","a","v"]

puts my\_array.join("")

10. Write a Ruby program that iterates through every element of an array and returns a new array HINT: .map()

Ans: puts "Iterating each array element"

cars = ['benz','audi','bmw']

puts cars

cars.map do |cars|

puts "model is #{cars}"

end