**1. Program to compute first n Fibonacci numbers first using loop**

**Program:**

def fibonacci( n )

x=-1

y = 1

i=0

while i<=n

sum=x+ y

x= y

puts y =sum

i+=1

end

return y

end

fibonacci(10)

**2. Recursive program to compute Fibonacci numbers.**

**Program:**

def fibonacci(n)

if n == 0

return 0

elsif n == 1

return n

else

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

puts sum

return sum

end

end

fibonacci(10)

**3. Program to find a number is prime or not**

**Program:**

def is\_prime n

for d in 2..(n - 1)

if (n % d) == 0

return false

end

end

true

end

is\_prime 3

**4. Recursive program to compute n!.**

**Program:**

def factorial(n)

if n == 0

return 1

else

puts n \* factorial(n - 1)

return n \* factorial(n - 1)

end

end

factorial(5)

**5. Write a program to convert a JSON file to a YAML file**

**Program:**

require 'json'

require 'yaml'

json = '{ "x": "y" }'

data = JSON.parse(json)

yml = YAML::dump(data)

puts yml

**6. Print all permutations of a string using loops**

**Program:**

def permutation(string)

return [string] if string.size < 2

chr = string.chars.first

perms = permutation(string[1..-1])

result = []

for perm in perms

for i in (0..perm.size)

result << (perm[0..i] + chr + perm[i..-1])

end

end

return result

end

puts permutation("xyz")

**7. Program to reverse a string**

**Program:**

puts "abcdef".reverse()

**8. Given an image find it's height and width**

**Program:**

# height and width of an image

require 'fastimage'

puts FastImage.size("http://www.bacteriainphotos.com/photo%20gallery/mrsa%20picture.jpg")

# in width and height

**9. Program for permutations of a string**

**Program:**

# Print all permutations of a string

puts %w[x y z].permutation.map &:join

**10. Write a program to print the top store in reddit. HINT: reddit.com/.json**

**Program:**

# top store in reddit

require 'json'

require 'open-uri'

result = JSON.parse open("https://www.reddit.com/.json").read

puts result["data"]["children"][0]["data"]["url"]

**11. Write a program to sort an array.**

**Program:**

# sorting an array

fruits = [ "orange", "apple", "banana", "pear", "grapes" ]

puts fruits.sort!

**12. Convert all the elements of an array to a single string**

**Program:**

string = ["This", "is", "a", "String"].join(" ")

puts string

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

Program:

numbers = [2, 4, 6, 8].map { |number| number \*\* 2 }

puts numbers