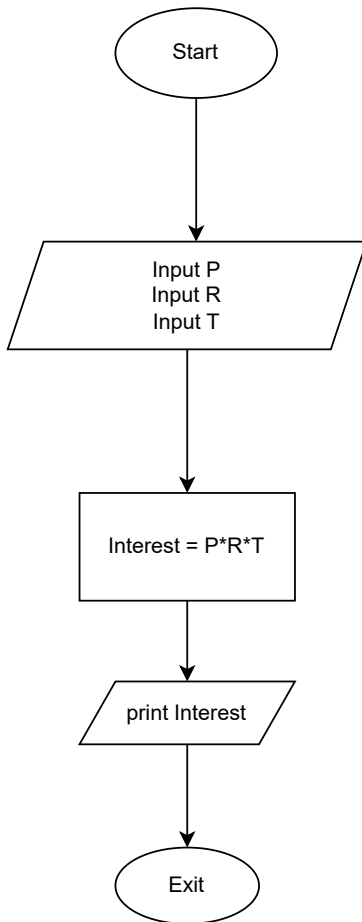# Homework Lecture 1 : DSA

a. Calculate "Simple Interest" from Principal (P), Rate (R) & Time (T).

Flowchart
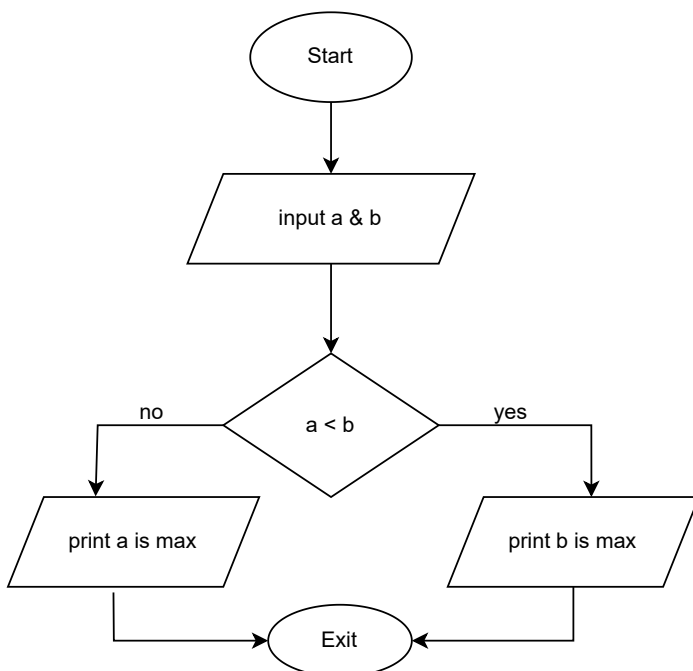
Start

Input P
Input R
Input T

Interest = P*R*T

print Interest

Exit

Pseudocode

step 1: input P.R,T

step 2: Interest = P*R*T

step 3: print Interest

step 4: Exit

b. Calculate Max of 2 numbers.

Flowchart

Start

input a & b

a < b

no

yes

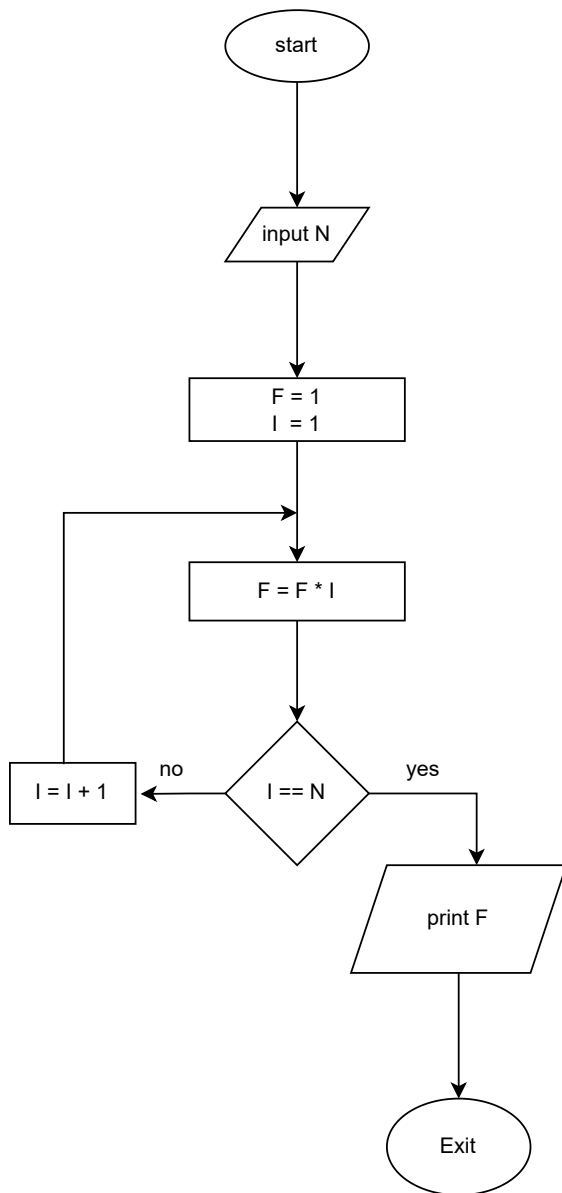print a is max

print b is max

Exit

Pseudocode

step 1: input a & b

step 2: if a < b
        print a is max
    else
        print bi s max

step 3: Exit

c. Calculate Factorial of a number N.

Flowchart

```
        start

       input N

        F = 1
        I = 1

        F = F * I

   no              yes
I = I + 1   I == N

            print F

             Exit
```

Pseudocode
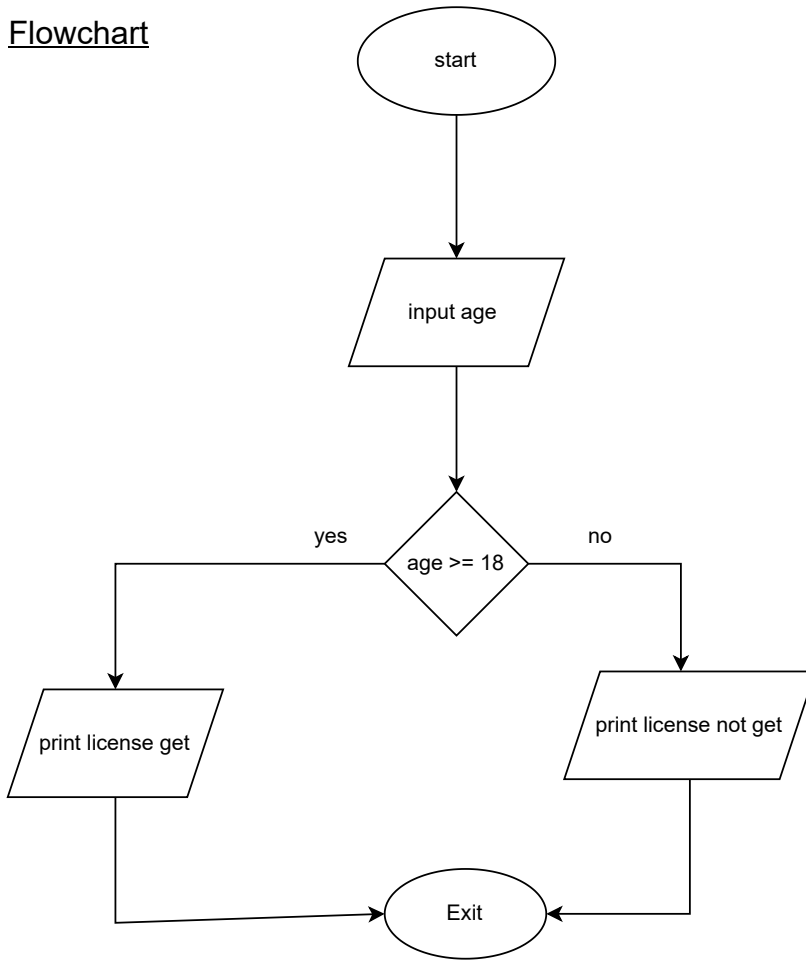
step 1: input N

step 2: F = 1, I = 1

step 3: while F = F * I
        if I == N
           print F
      else
           I = I + 1

step 3: Exit

d. Given a person's age, find if they should get a driving license or not.

Flowchart

```
            start
              |
              v
         input age
              |
              v
    yes   age >= 18   no
     |                  |
     v                  v
print license get   print license not get
     |                  |
     +----> Exit <------+
```

Pseudocode

step 1: input age

step 2: if age >= 18
        print license get
    else
        print license not get

step 3: Exit