**Exercise 2:**

- Using pseudo-code:

Input: arr[5] = {12,34,9,24,39};

Processing:

min = arr[0]

for(i = 1; i < 5;i++)

{

if(min >= arr[i])

min = arr[i];

}

Output: min

- Using UML:

Creat min = +∞

and i = 1

Input 5 int num a[1] -> a[5]

a[i] <min

F

Min = a[i]

i++

print output min

**Exercise 3:**

- Using pseudo-code:

Input: a; sum = 0;

Processing:

do

{

printf("a = ");

scanf("%d",&a);

sum +=a;

}

while(a!=0);

printf("sum = %d\n",sum);

Ouput: sum

- Using UML:

Creat sum = 0

Input a

F

a≠ 0

End

T

sum = sum + a

**Exercise 4:**

- Using pseudo-code:

Input:

double ti,tf, income;

double pa = 9000000;

double pd = 3600000;

int n, incomeTax;

Processing:

do

{

printf("Enter your income per months: ");

scanf("%lf", &income);

}

while (income < 1);

do

{

printf("Enter your dependents: ");

scanf("%d", &n);

}

while(n < 1);

tf = 12\*(pa+n\*pd);

ti = 12\*income - tf;

if(ti <= 0)

{

incomeTax = 0;

}else

if(ti <= 5000000)

{

incomeTax = 5;

}else

if(ti > 5000000 || ti <= 10000000)

{

incomeTax = 10;

} else

if(ti > 10000000 || ti <= 18000000)

{

incomeTax = 15;

} else

if(ti > 18000000)

{

incomeTax = 20;

}

Ouput: income; income\*12; ti; incomeTax

- Using UML:

Input income

Input n

Ti > 5

ti: = Income – Ra(9 + n\*3.6)

Ti > 0

Printf incomeTax Ta

Printf ti

Printf income

Ti = 1.95 + (ti – 18)\*0.2

Ti = 0.75 + (ti – 10)\*0.15

Ti = 0.25 + (ti – 5)\*0.1

Ti = \* 0.05

Ti = 0

Ti > 18

Ti > 10

F

T

F

T

F

T

F

T F