PROGRAMMING FOR PROBLEM SOLVING (18CSS101J)

MINI PROJECT

" RELATIONAL OPERATORS"

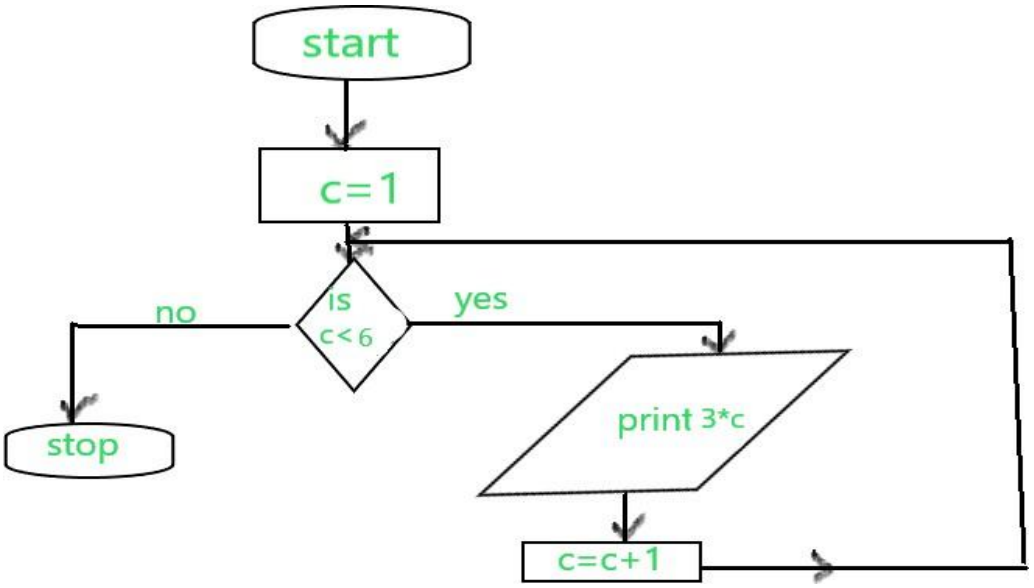
By: RAVYATHA KEERTHI MOLLETI (RA2111030010274)
AMARA VENAKATA DILEEP (RA2111003011816)
SHAILY RANI(RA2111030010278)

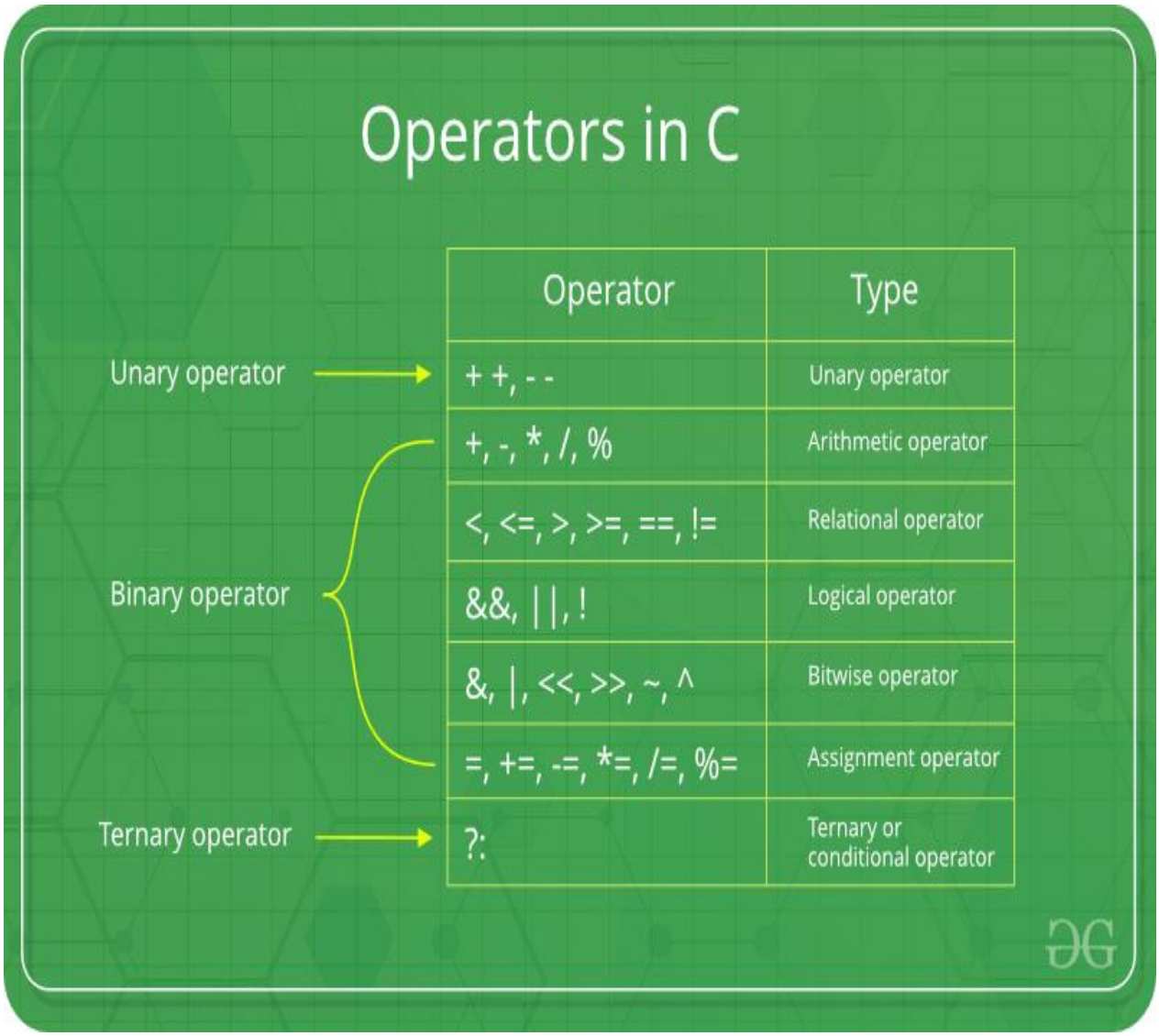
ABSTRACT:

In computer science, a relational operator is a programming language construct or operator that tests or defines some kind ofrelation between two entities. These include numerical equality (e.g., 5 = 5) and inequalities (e.g., 4 ≥ 3).

The Relational operators are used for comparison of the value of one element with another. There are six types of relational operators: equal, greater than, less than, greater than or equal to, less than or equal to, and not equal to. Each of these operators canbe used to compare the values of the variables.

Relational Operators	**Meaning**
>=	Greater than or equal to
<=	Less than or equal to
==	Equal to
!=	Not equal to


start
c=1
Is
c<6
no
yes
stop
print 3*c
c=c+1


Operators in C
Operator
Type
Unary operator
+ +, - -
Unary operator
Binary operator
+, -, *, /, %
Arithmetic operator
<, <=, >, >=, ==, !=
Relational operator
&&, ||, !
Logical operator
&, |, <<, >>, ~, ^
Bitwise operator
=, +=, -=, *=, /=, %=
Assignment operator
Ternary operator
?:
Ternary or conditional operator

PROBLEM :

Raj has following types of taxi .

Ola taxi :It can be booked by online application fron phone.

Fastrack taxi : I can be booked anywhere on road.

The Ola taxis costs ‘Oc’ for the first ‘Of’ km and ‘Od’ forevery km afterwards.The Fastrack taxis speed is ‘Cs’ perminute.

He is going to office from his home . Task is to minimize the cost he required to pay. The distance between the office and home is ‘D’. We

have to select whether he want to use Ola or Fastract togo to his office.

If both cost same ,then he must use an online tax.

Input formate:

First line : Single integer ‘D’ ,Denotes the distancebetween office and home.

Second line: three integers Oc,Of and Od.

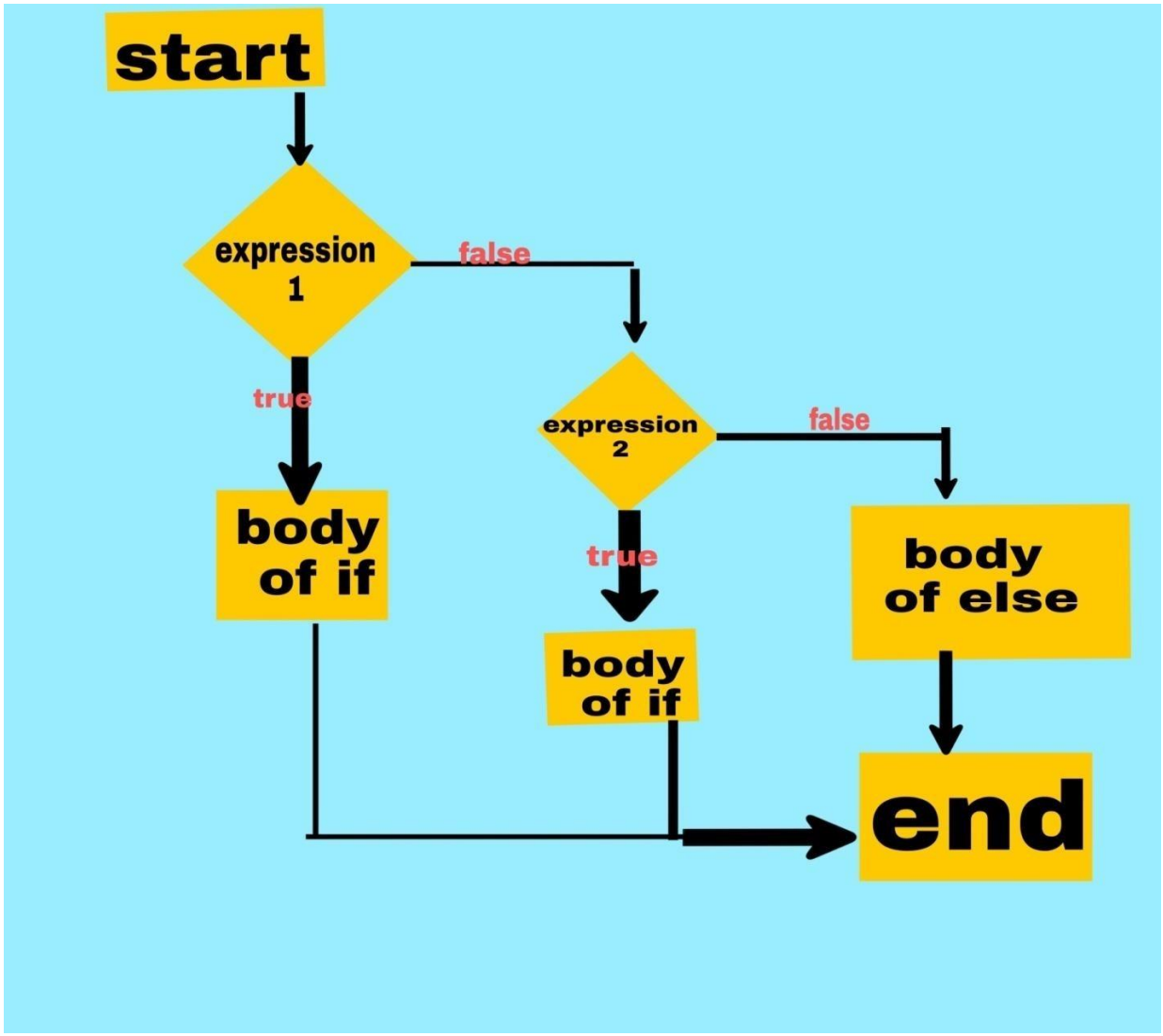
Third line : four integers Cs,Cb,Cm and Cd.

Output formate:

If raj take Ola than print Ola Taxi otherwise print Fastrack Taxi.

PROBLEM EXPLANATION:

1. Calculate the Ola Taxi fare , than Fastrack Taxifare .
2. Compare the fare of of ola Taxi fare andFastrack Taxi fare .
3. If Ola fare is greater than Fastrack fare thanprint Fastrack Taxi.
4. If Ola fare is smaller than Fastrack fare thanprint Ola Taxi.


start
expression 1
false
true
expression 2
false
body of if
true
body of else
body of if
end

CODE USED :

```
#include
<stdio.h>int
main()
{
int D,Oc,Of,Od,Fs,Fb,Fm,Fd;
scanf("%d",&D);
scanf("%d %d %d",&Oc,&Of,&Od);
scanf("%d %d %d %d",&Fs,&Fb,&Fm,
&Fd);int olacost=Oc+(D-Of)*Od;
Intftcost=(D/Fs*6o)*Fm+D*Fd+Fb;
if(olacost>ftcost)
 {
printf("Fastrack Taxi");
}
else if(ftcost>olacost)
{
printf("OLA Taxi");
}
else{printf("OLA Taxi");
}
return o;
}
```

Sample Output :

15030 30 30 30 30 30 30

“Ola Taxi”

```c
#include <stdio.h>
int main()
{
int D,Oc,Of,Od,Fs,Fb,Fm,Fd;
scanf("%d",&D);
scanf("%d %d %d",&Oc,&Of,&Od);
scanf("%d %d %d %d",&Fs,&Fb,&Fm,&Fd);
int olacost=Oc+(D-Of)*Od;
int ftcost=(D/Fs*60)*Fm+D*Fd+Fb;
if(olacost>ftcost)
{
printf("Fastrack Taxi");

}
else if(ftcost>olacost)
{
    printf("OLA Taxi");
}
else{
printf("OLA Taxi");
}
return 0;
```

```
/tmp/K9NvjIQOC1.o
150 30 30 30 30 30 30 30
OLA Taxi
```

CONCLUSION:

if-else statement is used for decision making in programming . If the given condition is true, then the code inside if block is executed, otherwise else block code is executed. Since if-else statement controlthe flow of the program, it is also called as Control Flow statement.