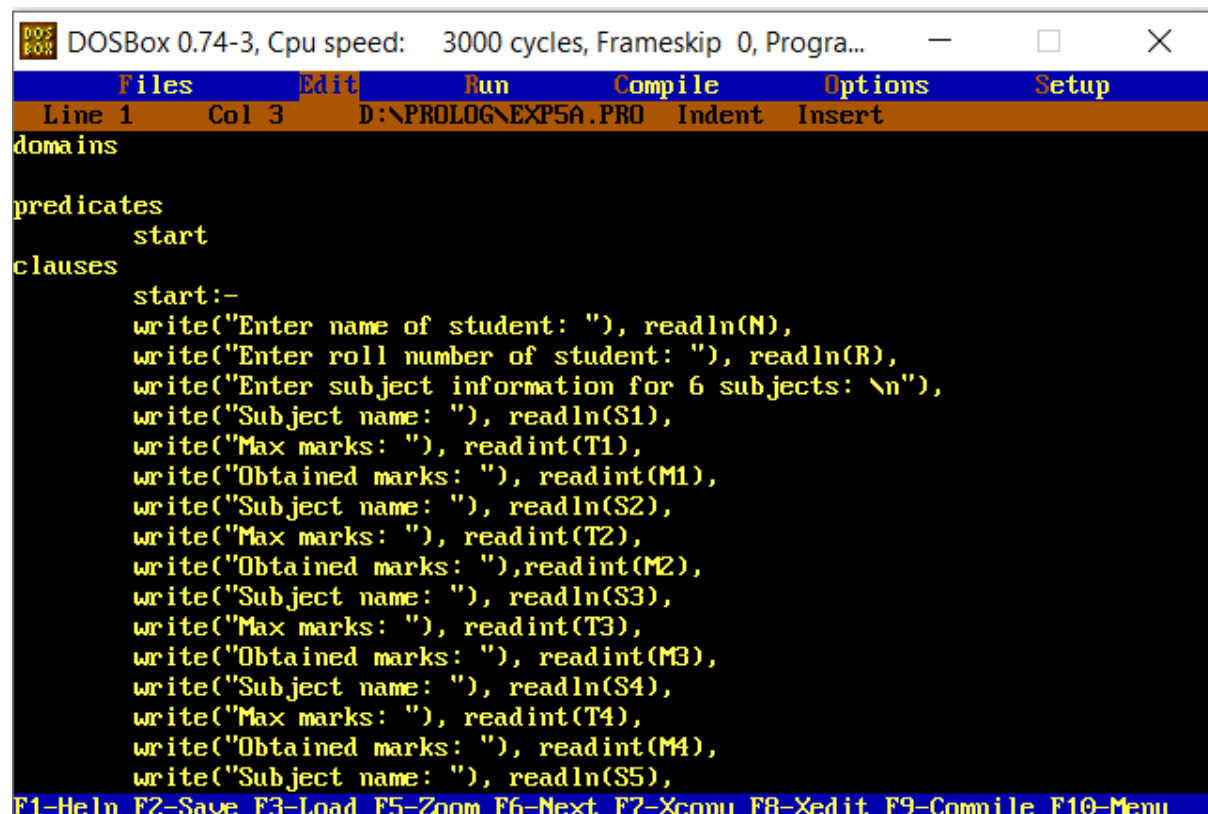


Lab-5 WAP to study Using arithmetic operators in Prolog.

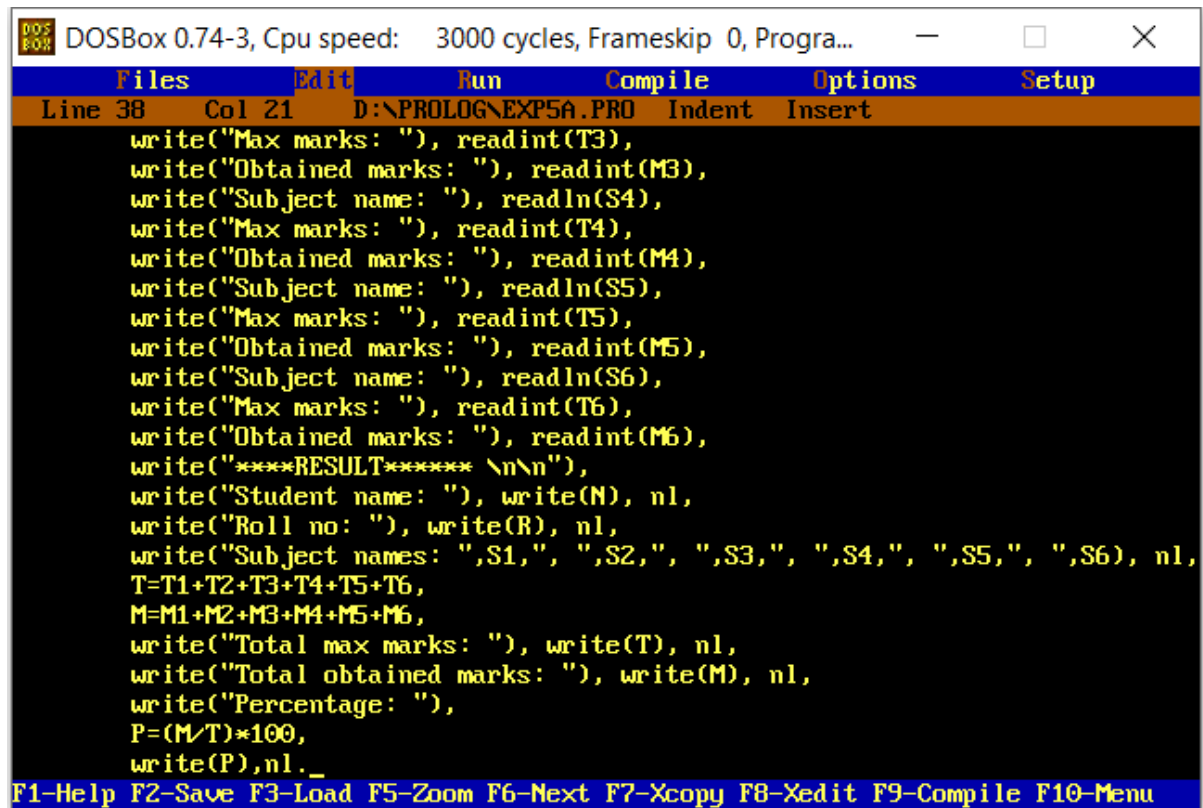
Procedure:- Write programs to-

- Accept name of the student, rollno, his subject name ,maximum marks and obtained marks in the subject. (Take marks of atleast 6 subjects) . Compute the percentage of a student. Display his result with other information. Use variables, arithmetic operators, I/O predicates appropriately.

Code:



```
DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Progra...
Files Edit Run Compile Options Setup
Line 1 Col 3 D:\PROLOG\EXP5A.PRO Indent Insert
domains
predicates
start
clauses
start:-
    write("Enter name of student: "), readln(N),
    write("Enter roll number of student: "), readln(R),
    write("Enter subject information for 6 subjects: \n"),
    write("Subject name: "), readln(S1),
    write("Max marks: "), readint(T1),
    write("Obtained marks: "), readint(M1),
    write("Subject name: "), readln(S2),
    write("Max marks: "), readint(T2),
    write("Obtained marks: "), readint(M2),
    write("Subject name: "), readln(S3),
    write("Max marks: "), readint(T3),
    write("Obtained marks: "), readint(M3),
    write("Subject name: "), readln(S4),
    write("Max marks: "), readint(T4),
    write("Obtained marks: "), readint(M4),
    write("Subject name: "), readln(S5),
F1-Help F2-Save F3-Load F5-Zoom F6-Next F7-Xconu F8-Xedit F9-Compile F10-Menu
```

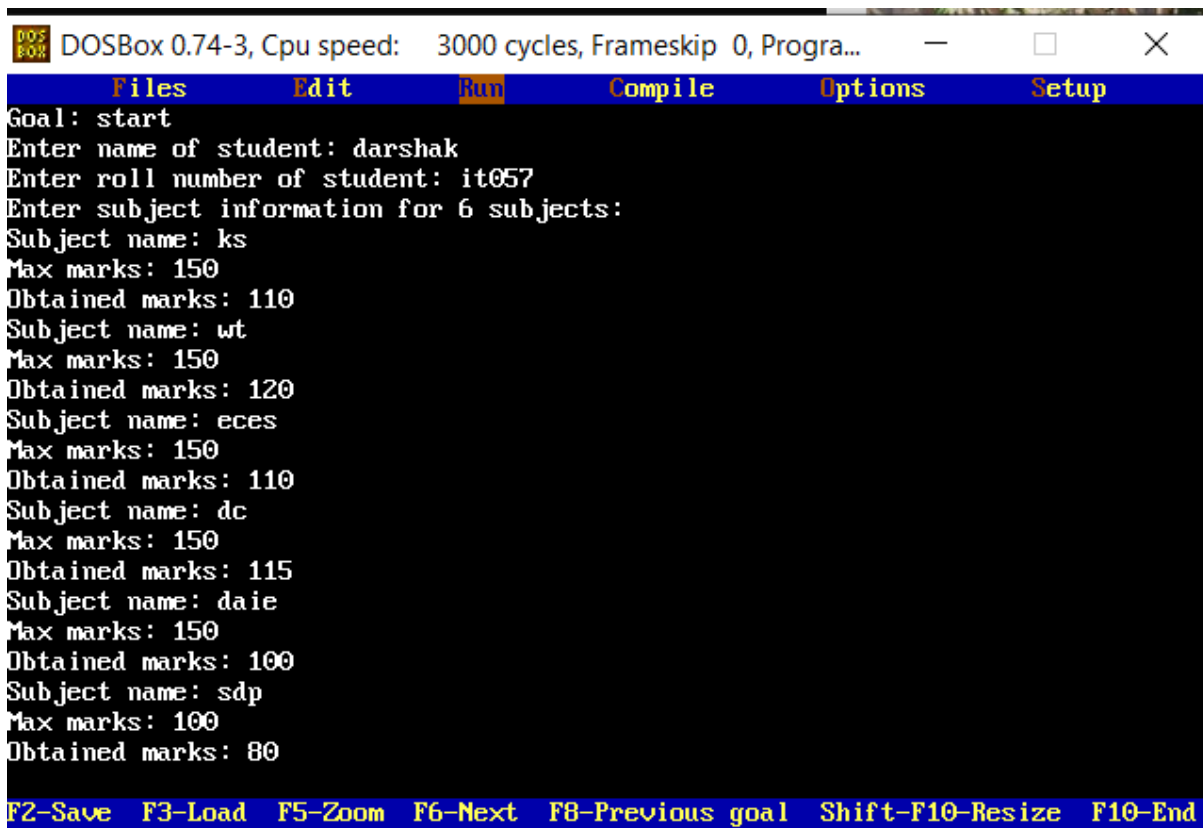


```

DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Progra...
Files Edit Run Compile Options Setup
Line 38 Col 21 D:\PROLOG\EXP5A.PRO Indent Insert
write("Max marks: "), readint(T3),
write("Obtained marks: "), readint(M3),
write("Subject name: "), readln(S4),
write("Max marks: "), readint(T4),
write("Obtained marks: "), readint(M4),
write("Subject name: "), readln(S5),
write("Max marks: "), readint(T5),
write("Obtained marks: "), readint(M5),
write("Subject name: "), readln(S6),
write("Max marks: "), readint(T6),
write("Obtained marks: "), readint(M6),
write("****RESULT***** \n\n"),
write("Student name: "), write(N), nl,
write("Roll no: "), write(R), nl,
write("Subject names: ",S1," ",S2," ",S3," ",S4," ",S5," ",S6), nl,
T=T1+T2+T3+T4+T5+T6,
M=M1+M2+M3+M4+M5+M6,
write("Total max marks: "), write(T), nl,
write("Total obtained marks: "), write(M), nl,
write("Percentage: "),
P=(M/T)*100,
write(P),nl._
F1-Help F2-Save F3-Load F5-Zoom F6-Next F7-Xcopy F8-Xedit F9-Compile F10-Menu

```

Output:



```

DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Progra...
Files Edit Run Compile Options Setup
Goal: start
Enter name of student: darshak
Enter roll number of student: it057
Enter subject information for 6 subjects:
Subject name: ks
Max marks: 150
Obtained marks: 110
Subject name: wt
Max marks: 150
Obtained marks: 120
Subject name: eces
Max marks: 150
Obtained marks: 110
Subject name: dc
Max marks: 150
Obtained marks: 115
Subject name: daie
Max marks: 150
Obtained marks: 100
Subject name: sdp
Max marks: 100
Obtained marks: 80
F2-Save F3-Load F5-Zoom F6-Next F8-Previous goal Shift-F10-Resize F10-End

```

```

DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Progra...
Files Edit Run Compile Options Setup
Obtained marks: 120
Subject name: eces
Max marks: 150
Obtained marks: 110
Subject name: dc
Max marks: 150
Obtained marks: 115
Subject name: daie
Max marks: 150
Obtained marks: 100
Subject name: sdp
Max marks: 100
Obtained marks: 80
*****RESULT*****
Student name: darshak
Roll no: it057
Subject names: ks, wt, eces, dc, daie, sdp
Total max marks: 850
Total obtained marks: 635
Percentage: 74.705882353
Yes
Goal: _
F2-Save F3-Load F5-Zoom F6-Next F8-Previous goal Shift-F10-Resize F10-End

```

domains

predicates

start

clauses

start:-

```

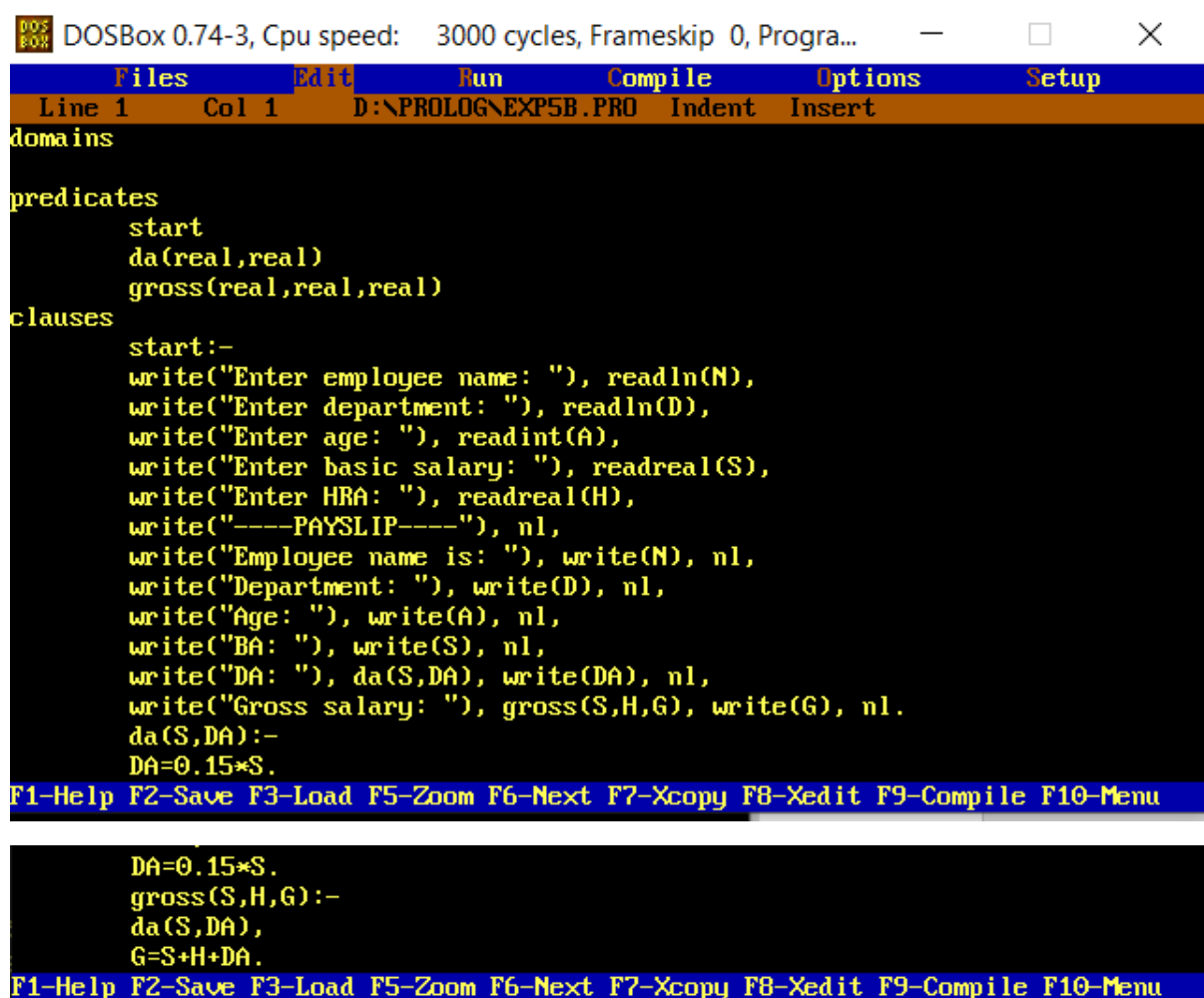
write("Enter name of student: "), readln(N),
write("Enter roll number of student: "), readln(R),
write("Enter subject information for 6 subjects: \n"),
write("Subject name: "), readln(S1),
write("Max marks: "), readint(T1),
write("Obtained marks: "), readint(M1),
write("Subject name: "), readln(S2),
write("Max marks: "), readint(T2),
write("Obtained marks: "), readint(M2),
write("Subject name: "), readln(S3),
write("Max marks: "), readint(T3),

```

```
write("Obtained marks: "), readint(M3),
write("Subject name: "), readln(S4),
write("Max marks: "), readint(T4),
write("Obtained marks: "), readint(M4),
write("Subject name: "), readln(S5),
write("Max marks: "), readint(T5),
write("Obtained marks: "), readint(M5),
write("Subject name: "), readln(S6),
write("Max marks: "), readint(T6),
write("Obtained marks: "), readint(M6),
write("*****RESULT***** \n\n"),
write("Student name: "), write(N), nl,
write("Roll no: "), write(R), nl,
write("Subject names: ",S1," ",S2," ",S3," ",S4," ",S5," ",S6), nl,
T=T1+T2+T3+T4+T5+T6,
M=M1+M2+M3+M4+M5+M6,
write("Total max marks: "), write(T), nl,
write("Total obtained marks: "), write(M), nl,
write("Percentage: "),
P=(M/T)*100,
write(P),nl.
```

- Accept department, designation, name, age, basic salary, house rent allowance(HRA) of an employee . Compute dearness allowance (DA) which is 15% of basic salary . Determine the gross salary(basic salary+HRA+DA) of the employee. Display all information of the employee. (Use variables, rules, I/O predicates, arithmetic operators as per needed).

Code:



```

DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Progra...
Files Edit Run Compile Options Setup
Line 1 Col 1 D:\PROLOG\EXP5B.PRO Indent Insert
domains
predicates
    start
    da(real,real)
    gross(real,real,real)
clauses
    start:-
        write("Enter employee name: "), readln(N),
        write("Enter department: "), readln(D),
        write("Enter age: "), readint(A),
        write("Enter basic salary: "), readreal(S),
        write("Enter HRA: "), readreal(H),
        write("----PAYSLIP----"), nl,
        write("Employee name is: "), write(N), nl,
        write("Department: "), write(D), nl,
        write("Age: "), write(A), nl,
        write("BA: "), write(S), nl,
        write("DA: "), da(S,DA), write(DA), nl,
        write("Gross salary: "), gross(S,H,G), write(G), nl.
    da(S,DA):-
        DA=0.15*S.
    gross(S,H,G):-
        da(S,DA),
        G=S+H+DA.
F1-Help F2-Save F3-Load F5-Zoom F6-Next F7-Xcopy F8-Xedit F9-Compile F10-Menu

```

```

    DA=0.15*S.
    gross(S,H,G):-
        da(S,DA),
        G=S+H+DA.
F1-Help F2-Save F3-Load F5-Zoom F6-Next F7-Xcopy F8-Xedit F9-Compile F10-Menu

```

Output:

```

DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Progra...
Files Edit Run Compile Options Setup
Goal: start
Enter employee name: darshak kathiriya
Enter department: ase
Enter age: 20
Enter basic salary: 28000
Enter HRA: 20000
----PAYSIP----
Employee name is: darshak kathiriya
Department: ase
Age: 20
BA: 28000
DA: 4200
Gross salary: 52200
Yes
Goal: _
F2-Save F3-Load F5-Zoom F6-Next F8-Previous goal Shift-F10-Resize F10-End

```

domains

predicates

start

da(real,real)

gross(real,real,real)

clauses

start:-

write("Enter employee name: "), readln(N),

write("Enter department: "), readln(D),

write("Enter age: "), readint(A),

write("Enter basic salary: "), readreal(S),

write("Enter HRA: "), readreal(H),

write("----PAYSIP----"), nl,

write("Employee name is: "), write(N), nl,

write("Department: "), write(D), nl,

```
write("Age: "), write(A), nl,  
write("BA: "), write(S), nl,  
write("DA: "), da(S,DA), write(DA), nl,  
write("Gross salary: "), gross(S,H,G), write(G), nl.  
da(S,DA):-  
DA=0.15*S.  
gross(S,H,G):-  
da(S,DA),  
G=S+H+DA.
```