

Assignment 3 c programing (LAB BOOK)

Q 1)WRITE A PROGRAM TO ACCEPT AN INTEGER AND CHECK IF IT IS EVEN OR ODD

```
#include<stdio.h>
#include<conio.h>
int main()
{
    int n;
    clrscr();
    printf("enter number");
    scanf("%d",&n);
    if (n%2==0)
        printf("\n even number",n);
    else
        printf("\n odd number",n);

    getch();
    return 0;
}
```

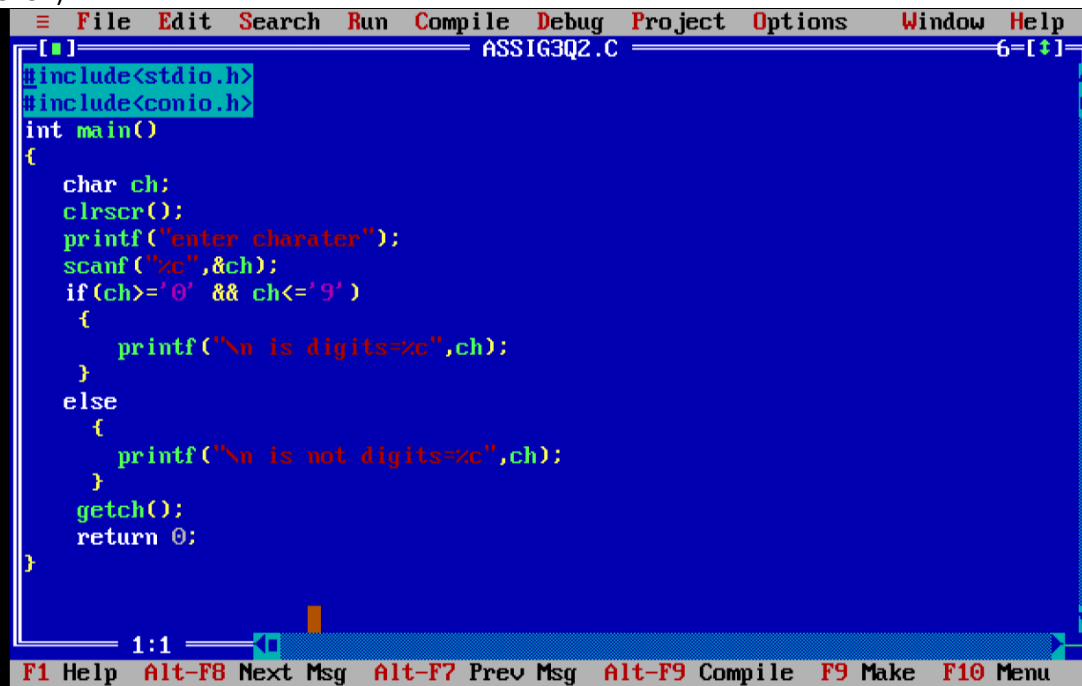
1:1

F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu

enter number 45

odd number

Q 2)ACCEPT A CHARACTER AS INPUT AND CHECK WHETHER THE CHARACTER IS A DIGITS.(RANGE '0'TO '9'.)



The screenshot shows the Turbo C++ IDE with the file name 'ASSIG3Q2.C'. The code is as follows:

```
#include<stdio.h>
#include<conio.h>
int main()
{
    char ch;
    clrscr();
    printf("enter charater");
    scanf("%c",&ch);
    if(ch>='0' && ch<='9')
    {
        printf("\n is digits=%c",ch);
    }
    else
    {
        printf("\n is not digits=%c",ch);
    }
    getch();
    return 0;
}
```

The status bar at the bottom of the IDE shows: F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu.

enter charater9

is digits=9_

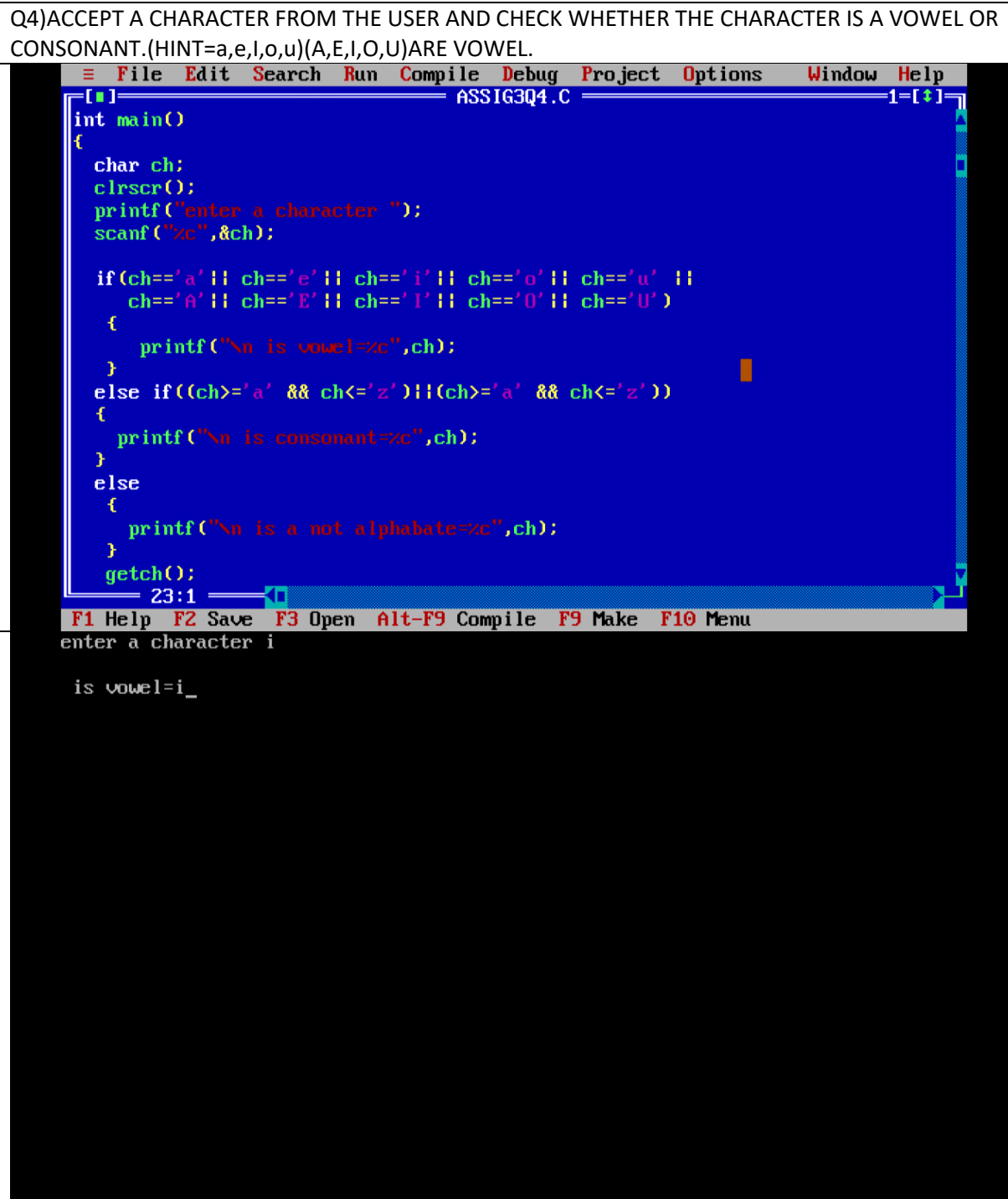
Q3)WRITE A PROGRAM ,WHICH ACCEPT ANNUAL BASIC SALARY OF AN EMPLOYEE AND CALCULATE AND DISPLAY THE INCOME TAX AS PER THE FOLLOWING RULE

```
File Edit Search Run Compile Debug Project Options Window Help
ASSIG3Q3.C
#include<stdio.h>
#include<conio.h>
int main()
{
    float salary,tax;
    clrscr();
    printf("enter the emp basic salary");
    scanf("%f",&salary);
    if (salary<=150000)
    {
        tax=0;
        printf("\n tax=%f",tax);
    }
    else if(salary>150000 && salary<=300000)
    {
        tax=(salary*0.2);
        printf("\n tax=%f",tax);
    }
    else if(salary>300000)
    {
        tax=(salary*0.3);
    }
}
```

F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu
enter the emp basic salary
154000

tax=30800.000000

Q4)ACCEPT A CHARACTER FROM THE USER AND CHECK WHETHER THE CHARACTER IS A VOWEL OR CONSONANT.(HINT=a,e,i,o,u)(A,E,I,O,U)ARE VOWEL.



```
File Edit Search Run Compile Debug Project Options Window Help
ASSIG3Q4.C 1=1
int main()
{
    char ch;
    clrscr();
    printf("enter a character ");
    scanf("%c",&ch);

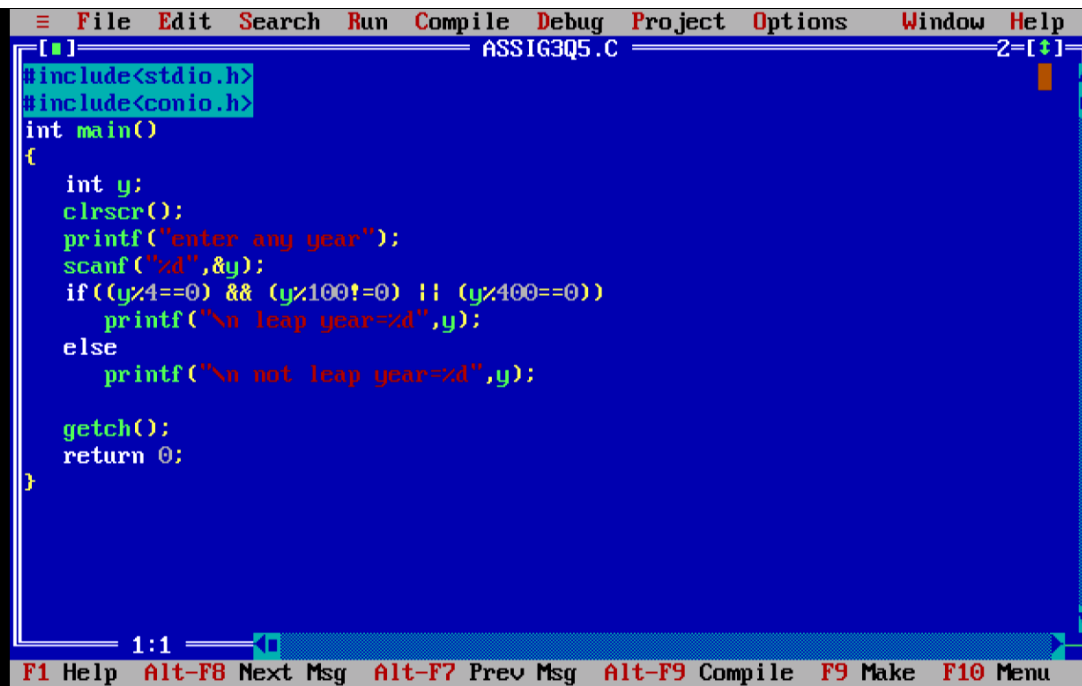
    if(ch=='a' || ch=='e' || ch=='i' || ch=='o' || ch=='u' ||
       ch=='A' || ch=='E' || ch=='I' || ch=='O' || ch=='U')
    {
        printf("\n is vowel=%c",ch);
    }
    else if((ch>='a' && ch<='z') || (ch>='A' && ch<='Z'))
    {
        printf("\n is consonant=%c",ch);
    }
    else
    {
        printf("\n is a not alphabate=%c",ch);
    }
    getch();
}
23:1
```

F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu

enter a character i

is vowel=i_

Q5)ACCEPT ANY YEAR INPUTE THROUGH THE KEYBORD.WRITE A PROGRAM TO CHECK WHETHER THE YEAR IS A LEAP YEAR OR NOT.(HINT LEAP YEAR DIVISIBLE BY 4 AND NOT BY 100 OR DIVISIBLE BY 400).



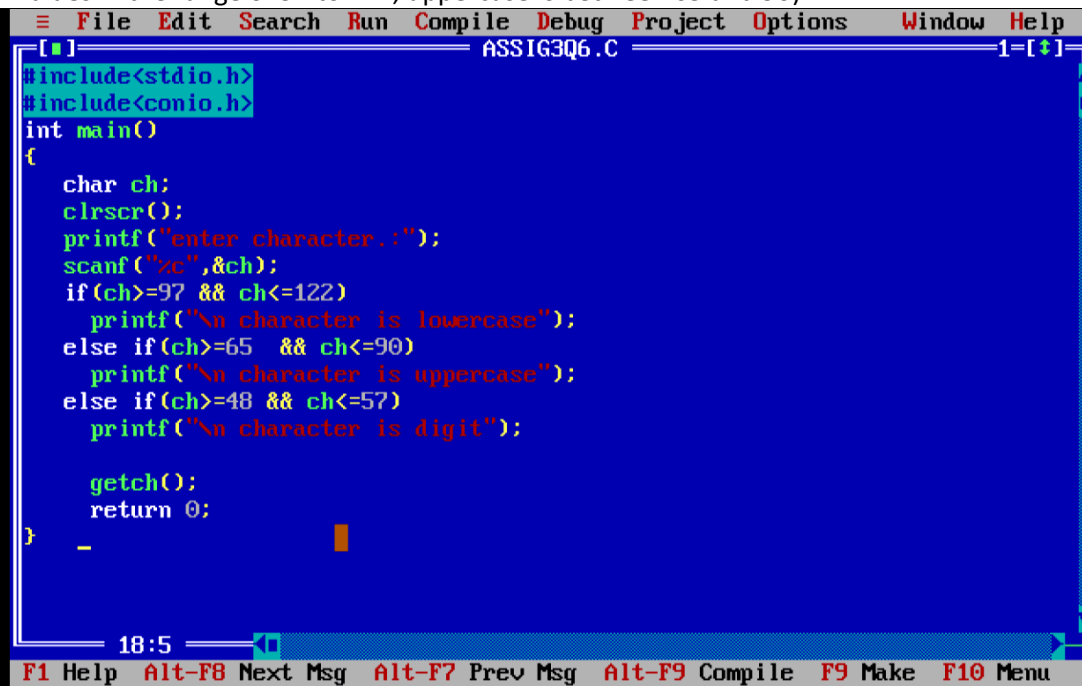
```
File Edit Search Run Compile Debug Project Options Window Help
ASSIG3Q5.C 2=1+1
#include<stdio.h>
#include<conio.h>
int main()
{
    int y;
    clrscr();
    printf("enter any year");
    scanf("%d",&y);
    if((y%4==0) && (y%100!=0) || (y%400==0))
        printf("\n leap year=%d",y);
    else
        printf("\n not leap year=%d",y);

    getch();
    return 0;
}
1:1
F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu
```

enter any year 2004

leap year=2004

6. Write a program to check whether given character is a digit or a character in lowercase or uppercase alphabet. (Hint ASCII value of digit is between 48 to 57 and Lowercase characters have ASCII values in the range of 97 to 122, uppercase is between 65 and 90)



```
File Edit Search Run Compile Debug Project Options Window Help
ASSIG3Q6.C 1=1+1
#include<stdio.h>
#include<conio.h>
int main()
{
    char ch;
    clrscr();
    printf("enter character.:");
    scanf("%c",&ch);
    if(ch>=97 && ch<=122)
        printf("\n character is lowercase");
    else if(ch>=65 && ch<=90)
        printf("\n character is uppercase");
    else if(ch>=48 && ch<=57)
        printf("\n character is digit");

    getch();
    return 0;
}
```

18:5

F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu

enter character.:S

character is uppercase

7. Accept the x and y coordinate of a point and find the quadrant in which the point lies.

```
File Edit Search Run Compile Debug Project Options Window Help
ASSIG3Q7.C 1=1+1
#include<stdio.h>
#include<conio.h>
int main()
{
    int x,y;
    printf("enter two number");
    scanf("%d%d",&x,&y);
    if(x>0 && y>0)
        printf("point(%d,%d)lies in the quadrant",x,y);
    else if(x<0 && y>0)
        printf("\n point (%d,%d)lies in the second quadrant",x,y);
    else if(x<0 && y<0)
        printf("\n point(%d,%d)lies in the third quadrant",x,y);
    else if(x>0 && y<0)
        printf("\n point(%d,%d)lies in the fourth quadrant",x,y);
    else if(x==0 && y==0)
        printf("\n printf(point(%d,%d)lies the origin quadrant",x,y);

    getch();
    return 0;
} 1:1
```

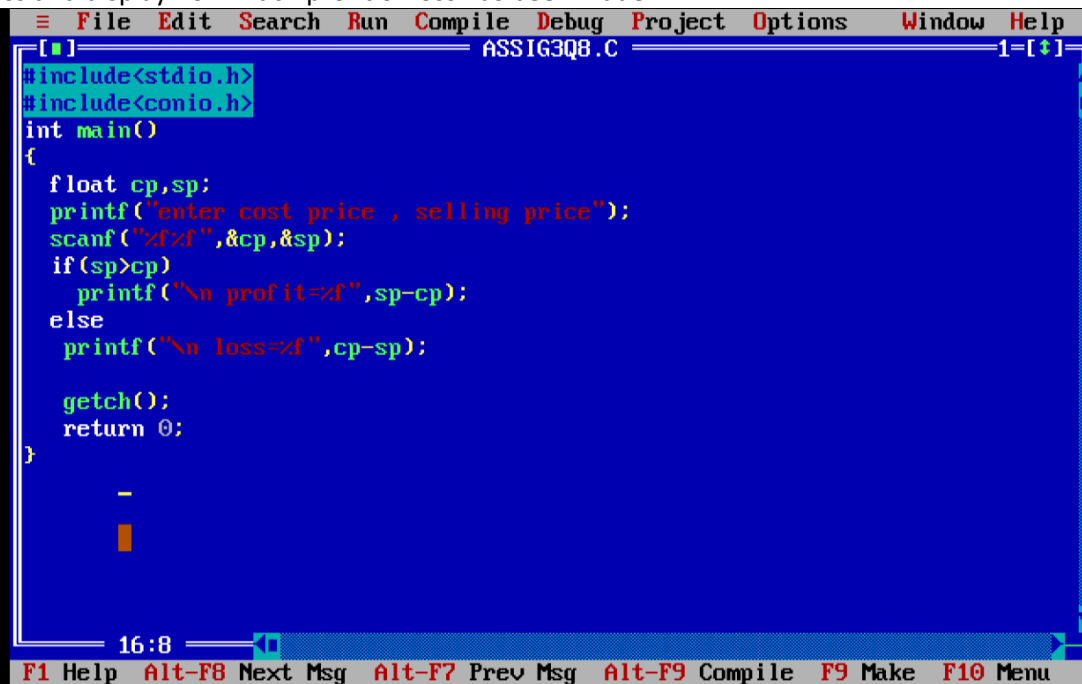
F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu

enter two number

4 -7

point(4,-7)lies in the fourth quadrant

8. Accept the cost price and selling price from the keyboard. Find out if the seller has made a profit or loss and display how much profit or loss has been made.



The screenshot shows a Turbo C++ IDE window titled "ASSIG3Q8.C". The menu bar includes File, Edit, Search, Run, Compile, Debug, Project, Options, Window, and Help. The code in the editor is as follows:

```
#include<stdio.h>
#include<conio.h>
int main()
{
    float cp,sp;
    printf("enter cost price , selling price");
    scanf("%f%f",&cp,&sp);
    if(sp>cp)
        printf("\n profit=%f",sp-cp);
    else
        printf("\n loss=%f",cp-sp);

    getch();
    return 0;
}
```

The status bar at the bottom of the editor shows "16:8". Below the editor, a secondary status bar contains function key shortcuts: F1 Help, Alt-F8 Next Msg, Alt-F7 Prev Msg, Alt-F9 Compile, F9 Make, and F10 Menu.

enter cost price , selling price
1000 1350

profit=350.000000