① create structure item details with member itemname, quantity, price, total amount. calculate party expenses.

```c
#include <stdio.h>
#define MAX 50

typedef struct item_details {
        char itemname[30];
        int quantity;
        float price;
        float total amount;
        } item;
int main()
    {
        item thing[MAX];
        int i, choice;
        int count = 0;
        float expenses = 0.0f;
          i = 0;
        do {
            printf("enter item details [%2d]:\n",
                  i+1);
            printf("item?");
            fgets(thing[i].itemname, 30, stdin);
```

```c
printf ("@price?");
scanf ("%f", &thing[i].price);

thing[i].totalamount = (float) thing[i].quantity
x   thing[i].price;
expenses += thing[i].totalamount;


i++
count++;
   getchar();
}
      while (choice==1);
printf ("All details are:\n");
for (i=0; i<=count; i++){
    printf ("%-30s\t %.2f \t %.3d \n %.2f \n",
thing[i].itemname, thing[i].price, thing[i].quantity
, thing[i].totalamount);
}
printf ("### ### total expense: %.2f\n",expense);
printf ("want to divide in friends (press 1 for yes
!");
scanf("%d", &choice);
if (choice == 1) {
    printf ("How many friends?");
    scanf ("%d", &i);
    printf ("each friend will have to pay: %.2f
n", (expenses / (float)i)); }

printf ("thanks for using me");
return 0;
}
```

② cREATE a stRucture with name student with structure members: name, usn, grandclist of sem1, grand list of sem2. The student wil be promoted to 3rd sem sem if he/she is not having backlogs of credit count >= 16

```c
# include <stdio.h>

struct  student {
    char name [10];
    @int usn ;
    int credit [4];
};

int main(){
    struct student sem1 = {"unknown", 245689,
                                {2,1,4,5}};
    int sum1;
    sum1 = sem1. credit[0] + sem1. credit[1] +
           sem1. credit[2] + sem1. credit[3];

    struct student sem2 = {"unknown", 235476, {3,1,
                                5}};
    int sum2;
    sum2 = sem2. credit[0] + sem2. credit[1] +
           sem2. credit[2] + sem2. credit[3];

    int total = sum1 + sum2;

    printf("name of the student : %s \n",
```

```c
printf("USN of the student : %d cb.\n", Sem1.
                                 USN);
printf("Total credits in Sem 1 : %d \n", Sum1);

printf("Total credits in Sem 2 : %d \n", Sum2);

if (total >= 16)
    {
        printf("\n %s not eligible for next sem",
                    Sem1, name);
    }
else {
        printf("\n %s eligible for next
                    sem, Sem1, name);
    }
}
```

Output:-

Name of the student : unknown
USN of the student : +BM 1234 5678
Total credits in Sem1 : 8
Total credits in Sem2 : 9
    17
<u>Unknow is not eligible for next sem</u>