Question 1)

```c
#include <stdio.h>
#include <string.h>
#include <stdlib.h>
int main()
{
    int quantity;
    float price;
    char name[100];
    FILE *fptr;
    fptr = fopen("C:\\products.txt", "w");
    if(fptr == NULL){
        printf("Error!");
        exit(1);

    }else{
        printf("Enter Name: \n");
        scanf("%s", &name);
        fprintf(fptr, "%s", name);
        printf("Enter Price: \n");
        scanf("%f", &price);
        fprintf(fptr, "%f", price);
        printf("Enter Quantity: \n");
        scanf("%d", &quantity);
        fprintf(fptr, "%d", quantity);

    }

    fclose(fptr);
    printf("Input Sucessfull!");
    return 0;
}
```

```
Enter Name:
Apple
Enter Price:
20
Enter Quantity:
10
Input Sucessfull!
--------------------------------
Process exited after 21.98 seconds with return value 0
Press any key to continue . . .
```

Q2)

```c
#include <stdio.h>

int main()
{
    FILE *fptr;
    fptr = fopen("C:\\attendance.txt", "r");
    char name[100];
    int count;
    if(fptr == NULL){
        printf("Error!");
        return 0;
    }
    printf("Names: \n");
    while (fscanf(fptr ,"%s", name) != EOF){
        printf("%s \n", name);
        count++;
    }
    printf("Total Students: %d", count);
    fclose(fptr);
    return 0;
}
```

```
Names:
Inshaal
Ahmed
Shoaib
Hashir
Haider
Total Students: 5
--------------------------------
Process exited after 0.2683 seconds with return value 0
Press any key to continue . . .
```

Q3)

```c
#include <stdio.h>
#include <string.h>

int main()
{
    char city[100], highCity[100];
    float temp, highest = 0;
    int i;
    FILE *fptr;
    fptr = fopen("C:\\temperature.txt", "w");
    if (fptr == NULL){
        printf("Error!");
        return 0;
    }
    printf("Enter Name of City and Its Temperature: \n");
    for(i=0; i<5; i++){

        scanf("%s %f", city , &temp);
        if (temp > highest){
            highest = temp;
            strcpy(highCity, city);
        }
        fprintf(fptr, "%s %.1f \n", city, temp);
    }
    printf("City with highest Temperature is %s \n", highCity);
    printf("Highest Temperature is %.1f", highest);
    fclose(fptr);
    return 0;
}
```

```
Enter Name of City and Its Temperature:
Karachi
28.7
Islamabad
11.2
Lahore
33
Multan
12.6
Peshawar
22.3
City with highest Temperature is Lahore
Highest Temperature is 33.0
--------------------------------
Process exited after 48.8 seconds with return value 0
Press any key to continue . . .
```

Q4)

```c
#include <stdio.h>
#include <string.h>

int main() {
    char names[5][50];
    int room[5];
    int i;
    char search[50];
    int found = 0;

    FILE *fp = fopen("hotel.txt", "w");

    for (i = 0; i < 5; i++) {
        printf("Enter guest name: ");
        scanf("%s", names[i]);

        printf("Enter room number: ");
        scanf("%d", &room[i]);

        fprintf(fp, "%s %d\n", names[i], room[i]);
    }

    fclose(fp);

    printf("\nEnter name to search: ");
    scanf("%s", search);

    for (i = 0; i < 5; i++) {
        if (strcmp(names[i], search) == 0) {
            printf("Room Number: %d\n", room[i]);
            found = 1;
            break;
        }
    }

    if (!found)
        printf("Guest not found.\n");

    return 0;
}
```

```
Enter guest name: Inshaal
Enter room number: 12
Enter guest name: Shoaib
Enter room number: 14
Enter guest name: Ahmed
Enter room number: 1
Enter guest name: Haider
Enter room number: 33
Enter guest name: Moin
Enter room number: 11

Enter name to search: Inshaal
Room Number: 12

--------------------------------
Process exited after 46.44 seconds with return value 0
Press any key to continue . . .
```

Q5)

```c
#include <stdio.h>
#include <string.h>

int main() {
    char pass[50];

    printf("Enter password: ");
    scanf("%s", pass);

    int len = strlen(pass);
    int strong = 0;

    if (strchr(pass, '@') || strchr(pass, '#') || strchr(pass, '!') || strchr(pass, '$'))
        strong = 1;

    if (len < 6)
        printf("Weak password\n");
    else if (strong == 1)
        printf("Strong password\n");
    else
        printf("Medium password\n");

    return 0;
}
```

```
Enter password: hahahehe1@
Strong password

--------------------------------
Process exited after 8.702 seconds with return value 0
Press any key to continue . . .
```

Q6)

```c
#include <stdio.h>
#include <string.h>

int main() {
    char books[10][50];
    char search[50];
    int i, found = 0;

    printf("Enter 10 book titles:\n");
    for (i = 0; i < 10; i++) {
        scanf("%s", books[i]);
    }

    printf("\nEnter book to search: ");
    scanf("%s", search);

    for (i = 0; i < 10; i++) {
        if (strcmp(books[i], search) == 0) {
            found = 1;
            break;
        }
    }

    if (found)
        printf("Book Found\n");
    else
        printf("Book Not Found\n");

    return 0;
}
```

```
Enter 10 book titles:
Harry Potter
a
b
c
d
e
f
g
h

Enter book to search: Harry Potter
Book Found

--------------------------------
Process exited after 27.94 seconds with return value 0
Press any key to continue . . .
```

Q7)

```c
#include <stdio.h>

int main() {
    char category[50];
    float amount;

    FILE *fp = fopen("expenses.txt", "a");

    if (fp == NULL) {
        printf("File not found!");
        return 0;
    }

    printf("Enter expense category: ");
    scanf("%s", category);

    printf("Enter amount: ");
    scanf("%f", &amount);

    fprintf(fp, "%s %.2f\n", category, amount);
    fclose(fp);

    printf("\nCurrent file content:\n");

    fp = fopen("expenses.txt", "r");
    char line[100];

    while (fgets(line, sizeof(line), fp)) {
        printf("%s", line);
    }

    fclose(fp);

    return 0;
}
```

```
Enter expense category: Food
Enter amount: 5000

Current file content:
Food 5000.00

--------------------------------
Process exited after 41.06 seconds with return value 0
Press any key to continue . . .
```