ACTIVITY 2: Hotel bill discounts

Research: Searched for food coupons and hotels which give discounts when a customer finishes a dish in a given time limit. Researched microsoft bing and found that this is a strategy used by restaurants to increase their customers and add a fun element to just eating food.

Analyse:

The aim is to write a code to give discounts according to the time required by a person to eat a certain dish. This strategy is used by restaurants and hotels to increase customers. They might need a system for the calculation of discounts.

Ideate:

The user should enter the price of the dish and the time required to finish it. The system will read these values and the discounted price will be displayed.
For example, if a person eats a dish which is priced at 500 rupees in 40 minutes, he gets a 5% discount. If the person finishes the dish in 30 minutes then he gets a 10% discount.

Build:

```c
#include<stdio.h>
int main(){
    int bill,time;
    printf("Enter price of the dish.");
    scanf("%d", & bill);
    printf("Enter the time required to finish the dish in minutes.");
    scanf("%d", & time);
    if(time>30 && time<=40){
```

```c
        bill = bill-(0.05*bill); //apply 5%
discount.
        printf("You have to pay bill %d",bill);
    }
    else if(time<=30){
        bill = bill-(0.1*bill); //apply 10%
discount.
        printf("You have to pay bill %d",bill);
    }
    else{
        printf("No discount is applicable.");
    }
    return 0;
}
```

Testing:

For testing purposes, consider the price of the dish as 100 rupees

Case 1: Customer finishes the dish in more than 40 minutes, say 50 minutes.

Output:

Enter price of the dish.100

Enter the time required to finish the dish in minutes.50

No discount is applicable.

Case 2: Customer finishes the dish in between 30 and 40 minutes, say 35 minutes.Then a 5% discount is applied.

Output:

Enter price of the dish.100

Enter the time required to finish the dish in minutes.35

You have to pay bill 95

Case 3: Customer finishes the dish in 30 minutes or under, say 25 minutes. Then a 10% discount is applied.

Output:

Enter price of the dish.100

Enter the time required to finish the dish in minutes.25
You have to pay bill 90

Implement: Uploaded project on GitHub.

Conclusion:

Thus, a working software c program is generated for the restaurants and hotels who want to give discount on dishes according to time it takes to finish the dish and then calculate the final bill the customer needs to pay.