***ACTIVITY 2***

**DISPLAY THE GRADE OF STUDENT**

Develop a C program to calculate the average and grade of each student in the first year B. Tech. program based on their marks obtained in the first semester. The program should prompt the user to input the marks of each student for subjects such as Mathematics, Physics, Chemistry, English, and Computer Science. Using control structures such as loops and conditional statements, the program should calculate the average marks and assign grades to each student according to predefined grading criteria. Finally, the program should display the average marks and grade for each student.

**TOPIC NAME - HOTEL**  **GRADING**

***1) REASERCH -***

Grading systems used in daily life . These systems provide a simple way to quickly understand a quality level .Helping people make informed decisions without needing depth exercise. It has applications such as teachers and students using this to track the assignments , calculate the averages. By applying a grading framework , individuals can set clear standards , track progress, and make more informed decisions in areas like career development. While specific criteria vary by country, 1-star is basic lodging, and 5-star hotels provide high-end services like concierge and spas. The system helps guests understand a hotel's quality and manage expectations for their stay.

***LINK -*** [***https://en.wikipedia.org/wiki/Hotel\_rating***](https://en.wikipedia.org/wiki/Hotel_rating)

***-***[***https://www.skyscanner.co.in/news/hotel-star-ratings-explained***](https://www.skyscanner.co.in/news/hotel-star-ratings-explained)

***-*** [***https://everydayeducation.com/blogs/news/grading-systems?srsltid=AfmBOoqPnriPXTrCMSanZ2NU0yCWZflZYfXsX1ZaHPv0oam19sfViPts***](https://everydayeducation.com/blogs/news/grading-systems?srsltid=AfmBOoqPnriPXTrCMSanZ2NU0yCWZflZYfXsX1ZaHPv0oam19sfViPts)

***2) ANALYSIS -***

* Hotel grading system is a simple ,reliable and effective way to evaluate hotels based on measurable quality points.
* Hotels are quantitatively graded instead of just reviews.
* Customers can compare the hotels easily.
* Hotels can identify their weak points for improvement.

***3) IDEATE -***

PROBLEM STATEMENT= Absence of structured and transparent grading systems makes it difficult for travelers that compare the hotels fairly.

ALGORITHM =

Step 1- Start

Step 2- Input- Cleanliness(0-10)

- Service(0-10)

- Food Quality(0-10)

- Facilities(0-10)

- Location(0-10)

Total Points = 50

Step 3- Process-Compare the grading criteria and assign grade (A to E)

Step 4- Output - Display the total points and final grade for hotel

Step 5- Stop.

***4)BUILD -***

#include <stdio.h>

int main() {

int cleanliness,service,food ,facilities,location,total;

char grade;

printf("Enter the points for cleanliness(0-10):");

scanf("%d",&cleanliness);

printf("Enter the points for service(0-10):");

scanf("%d",&service);

printf("Enter the points for food(0-10):");

scanf("%d",&food);

printf("Enter the points for facilities(0-10):");

scanf("%d",&facilities);

printf("Enter the points for location(0-10):");

scanf("%d",&location);

total=cleanliness+service+food+facilities+location;

if(total>=41) grade='A';

else if (total>=31) grade='B';

else if (total>=21) grade='C';

else if (total>=11) grade='D';

else if (total>=1) grade='E';

printf("Hotel total score %d/50\n",total);

printf("Hotel grade:%c\n",grade);

return 0;

}

***5) TESTING -***

1] Enter the points for cleanliness(0-10):8

Enter the points for service(0-10):9

Enter the points for food(0-10):7

Enter the points for facilities(0-10):8

Enter the points for location(0-10):6

Hotel total score 38/50

Hotel grade:B

2]Enter the points for cleanliness(0-10):9

Enter the points for service(0-10):8

Enter the points for food(0-10):7

Enter the points for facilities(0-10):8

Enter the points for location(0-10):9

Hotel total score 41/50

Hotel grade:A

3]Enter the points for cleanliness(0-10):5

Enter the points for service(0-10):4

Enter the points for food(0-10):6

Enter the points for facilities(0-10):3

Enter the points for location(0-10):5

Hotel total score 23/50

Hotel grade:C

***6) IMPLEMENT -***