***Programming assignment 6***

#include <stdio.h>

void main()

{

int movieRating[21];

float averageRating = 0.0;

int ratingFrequency[5] = { 0,0,0,0,0 };

int count = 0;

float sum = 0;

float ratingPercent[] = { 0,0,0,0,0 };

for (int i = 0; i < 21; i++) // initialise i, for i<21 and increment

{

printf("Enter rating for movie number %d on a scale of 1-5: ", i + 1); //

scanf\_s("%d", &movieRating[i]); // input the rating for movie rating

sum = sum + movieRating[i]; //

ratingFrequency[movieRating[i] - 1]++; // this ensures rating frequency incorporates 0th place

}

averageRating = sum / 21; // formula for average

printf("The average rating is %0.1f \n", averageRating); // to 1 decimal place

printf("Rating Frequency\n");

printf("-----------------------\n");

for (count = 0; count < 5; count++) // initialise, for loop, increment

{

printf("%d star: ", count + 1); // displays & adds 1 to count

for (int j = 0; j < ratingFrequency[count]; j++)

printf("\*");

printf("\t %d\n", ratingFrequency[count]);

}

printf("-------------------\n");

printf("Rating percentage\n");

printf("-------------------\n");

for (count = 0; count < 5; count++) // for loop displaying stars and percentage rating

{

ratingPercent[count] = 100\*((float)ratingFrequency[count] / 21); // formula for rating frequency

printf("%d star: \t", count + 1);

for (int j = 0; j < ratingPercent[count]; j++)

{

printf("\*");

}

printf("\t %0.1f% \n", ratingPercent[count]); // rating percentage to one decimal place

}

}

***A screenshot of a computer

Description automatically generated with medium confidence***

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