ASSIGNMENT 02

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BSCS-8B

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TASK 01:

//Name: Danial Ahmad

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#include<stdio.h>

int main(void)

{

int start\_day, days\_in\_month, i, day\_of\_week;

//start\_day is the day of week from which the month starts.

printf("Enter start day: ");

scanf\_s("%d", &start\_day);

//days\_in\_month are the days in the month.

printf("Enter days in month: ");

scanf\_s("%d", &days\_in\_month);

//This for loop is used to print spaces in the first row.

for (i = 1; i < start\_day; i++) {

printf(" ");

}

//This for loop is used to print the days of the month.

for (i = 1; i <= days\_in\_month; i++) {

printf("%2d ", i);

if ((i + start\_day - 1) % 7 == 0) {

printf("\n");

}

}

return 0;

}

TASK 02:

//Danial Ahmad

//BSCS-8B

//CMS : 249912

#include <stdio.h>

int factorial(int num)

{

int a;

int factorial = 1;

for(a = 1; a <= num ; a++)

{

factorial = factorial \* a; //Formula for the factorial

}

return factorial; //Factorial is returning

int c(int n , int k) //Defining function to calculate combinations

{

int a = factorial(n);

int b = factorial(k);

int c = factorial(n-k);

return a/(b\*c); //Calculating the combination and returning the value

}

int main()

{

int b, rows = 0;

int n, k = 0;

printf("Enter the number of rows you want : ");

scanf\_s("%d",&rows);

for(n = 0; n < rows; n++) //For first triangle involving combinations

{

for(b = 1; b <= rows-n;b++)

{

printf(" ");

}

for(k = 0; k <= n; k++)

{

printf("c(%d,%d) ",n,k);

}

printf("\n");

}

for(n = 0; n < rows; n++) //For second triangle

{

for(b = 1; b <= rows-n;b++)

{

printf(" ");

}

for(k = 0; k <= n; k++)

{

printf("%d ",c(n, k));

}

printf("\n");

}

getch();

return 0;

}