EEL PROJECT

ASSIGNMENT 1

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Research

It is a software which checks whether a student is eligible to take admission in a certain college through their marks obtained in their respective exams, thus it saves time and energy and we are able to see one of the useful applications of programming in our daily life We got compiler and syntax error while making this calculator

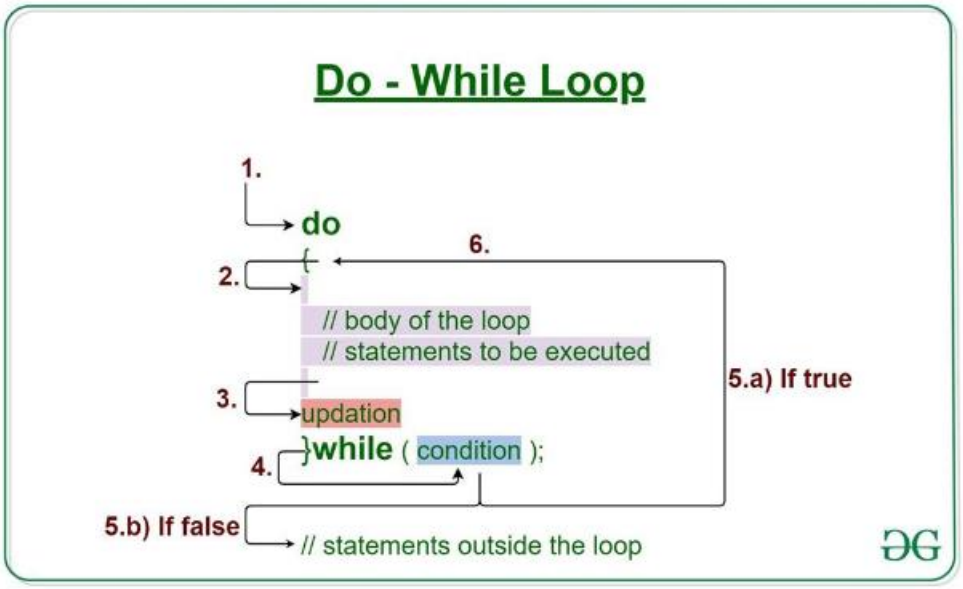
A syntax error refers to a mistake in the code that violates the rules of the programming language's syntax. This can include issues like missing punctuation, incorrect use of keywords, or improperly structured statements. Because of these errors, the code cannot be compiled or executed until they are fixed. 10

A compile error occurs when the code fails to compile due to various issues, which can include type mismatches, missing files, or other violations of the language's rules. These errors prevent the program from being translated into executable code. Unlike runtime errors, which happen while the program is running, compile errors must be resolved before the program can be executed at all.

We used the websites mentioned below for gathering information for this assignment:

1) https://w3codeworld.com/ide/c-online-compiler?example=c-program-to-find-grade-of-a-student-using-if-else-ladder@15
2) https://codescracker.com/c/program/c-program-calculate-student-grade.htm#:~:text=C%20Program%20to%20Calculate%20the%20Grade%20of%20a%20Student:%20In
3) https://www.geeksforgeeks.org/do-while-loop-syntax/

SYNTAX OF DO WHILE LOOP WHICH IS USED IN OUR CODE



Analyse

While creating this programme we were getting compile time and run time error continuously, after discussing among the group members we researched on the problems and found a website called geeks for geeks, it is basically a problem-solving platform where we found the solutions for our problems, thus our errors were rectified.

We also got our solution from w3codeworld.com and codescracker.com as mentioned above. Through these websites we got the basic structure of our program.

As we had already mentioned the links of websites referred above for your reference.

Work done by the group members:

Sachin has gathered the information regarding switch statements and basic syntax, also helped to rectify the errors (i.e. syntax and compile error) while programming.

Shruti helped with the programming and create the word file for the assignment.

Nidhi built the complete program and made it working after rectifying the errors, also helped with the word file.

Ideate

This program helps students to check whether they will be able to take admission in which branch with their respective scores.

We did the following modifications in the code:

1)we added a feature to make the frontend attractive in our program by using

Hello, name.

2)we used do while loop for our complete program execution which helped us to make our program more effective and real.

3) we added a feature in which if the user enters the marks not in the range form 0-100 then it will ask the user to again enter the correct marks in the given range for that respective subject.

4) we added a feature to check eligibility of multiple students in a single run without exiting from code by typing yes or no.

Do you want to check admission status again? (Y/N):

Build

```
#include<stdio.h>


int main() {
   float physics, chemistry, maths, marks, score;
   char choice;
   char name[50];  // Array to store the user's name

   // Prompt for the user's name
   printf("Enter your name: ");
   scanf("%49s", name);
```

```
// Display a welcome message with the user's name
printf("Hello, %s!\n", name);

do {
   printf("Welcome to SSN Institute of Engineering, Pune\n");
   printf("Check your admission status by entering your respective marks\n");

   // Input with validation
   do {
      printf("Enter your physics marks (0-100): ");
      scanf("%f", &physics);
   } while (physics < 0 || physics > 100);

   do {
      printf("Enter your chemistry marks (0-100): ");
      scanf("%f", &chemistry);
   } while (chemistry < 0 || chemistry > 100);

   do {
      printf("Enter your maths marks (0-100): ");
      scanf("%f", &maths);
   } while (maths < 0 || maths > 100);

   // Calculate total marks and average
   marks = physics + chemistry + maths;
```

```
    float average = marks / 3;

    // Display average marks
    printf("Your total marks: %.2f\n", marks);
    printf("Your average marks: %.2f\n", average);

// Determine letter grade
    char grade;
    if (marks >= 270) {
        grade = 'A';
    } else if (marks >= 240) {
        grade = 'B';
    } else if (marks >= 210) {
        grade = 'C';
    } else if (marks >= 180) {
        grade = 'D';
    } else {
        grade = 'F';
    }
    printf("Your grade: %c\n", grade);

    // Check eligibility using nested if-else condition
    if (marks >= 150) {
        printf("You are eligible to take admission in our college.\n");
        printf("Please enter your entrance exam score: ");
        scanf("%f", &score);
```

```
            if (score >= 90) {
                printf("Congrats, you are eligible for all CS, IT, E&TC, MECH\n");
            } else if (score >= 80) {
                printf("Congrats, you are eligible for IT, E&TC, MECH\n");
            } else if (score >= 70) {
                printf("Congrats, you are eligible for E&TC, MECH\n");
            } else if (score >= 60) {
                printf("Congrats, you are eligible for MECH\n");
            } else {
                printf("Sorry, you are not qualified\n");
            }

        } else {
            printf("Sorry, you cannot take admission in our college\n");
        }

        // Ask if the user wants to check again
        printf("Do you want to check admission status again? (Y/N): ");
        scanf(" %c", &choice); // Note the space before %c to consume any
newline characters
    } while (choice == 'Y' || choice == 'y');

if (choice == 'N' || choice == 'n') { printf("Thank you, have a nice day!\n"); }
    return 0;

  }
```

Test

SCREENSHOT OF OUR COMPLETE CODE WITH OUTPUT

```c
#include <stdio.h>

int main() {
    float physics, chemistry, maths, marks, score;
    char choice;
    char name[50];  // Array to store the user's name

    // Prompt for the user's name
    printf("Enter your name: ");
    scanf("%49s", name);

    // Display a welcome message with the user's name
    printf("Hello, %s!\n", name);

    do {
        printf("Welcome to SSN Institute of Engineering, Pune\n");
        printf("Check your admission status by entering your respective marks\n");

        // Input with validation
        do {
            printf("Enter your physics marks (0-100): ");
            scanf("%f", &physics);
        } while (physics < 0 || physics > 100);

        do {
            printf("Enter your chemistry marks (0-100): ");
            scanf("%f", &chemistry);
```

```c
    } while (chemistry < 0 || chemistry > 100);

    do {
        printf("Enter your maths marks (0-100): ");
        scanf("%f", &maths);
    } while (maths < 0 || maths > 100);

    // Calculate total marks and average
    marks = physics + chemistry + maths;
    float average = marks / 3;

    // Display average marks
    printf("Your total marks: %.2f\n", marks);
    printf("Your average marks: %.2f\n", average);

    // Determine letter grade
    char grade;
    if (marks >= 270) {
        grade = 'A';
    } else if (marks >= 240) {
        grade = 'B';
    } else if (marks >= 210) {
        grade = 'C';
    } else if (marks >= 180) {
        grade = 'D';
    } else {
        grade = 'F';
    }
    printf("Your grade: %c\n", grade);

    // Check eligibility using nested if-else condition
    if (marks >= 150) {
        printf("You are eligible to take admission in our college.\n");
        printf("Please enter your entrance exam score: ");
        scanf("%f", &score);

        if (score >= 90) {
            printf("Congrats, you are eligible for all CS, IT, E&TC, MECH\n");
        } else if (score >= 80) {
            printf("Congrats, you are eligible for IT, E&TC, MECH\n");
        } else if (score >= 70) {
            printf("Congrats, you are eligible for E&TC, MECH\n");
        } else if (score >= 60) {
            printf("Congrats, you are eligible for MECH\n");
        } else {
            printf("Sorry, you are not qualified\n");
        }

    } else {
        printf("Sorry, you cannot take admission in our college\n");
    }
```

```c
        // Ask if the user wants to check again
        printf("Do you want to check admission status again? (Y/N): ");
        scanf(" %c", &choice); // Note the space before %c to consume any newline characters
    } while (choice == 'Y' || choice == 'y');

    if (choice == 'N' || choice == 'n') {
        printf("Thank you, have a nice day!\n");
    }

    return 0;
}
```

OUTPUT OF OUR CODE

```
Enter your name: NIDHI
Hello, NIDHI!
Welcome to SSN Institute of Engineering, Pune
Check your admission status by entering your respective marks
Enter your physics marks (0-100): 90
Enter your chemistry marks (0-100): 91
Enter your maths marks (0-100): 92
Your total marks: 273.00
Your average marks: 91.00
Your grade: A
You are eligible to take admission in our college.
Please enter your entrance exam score: 91
Congrats, you are eligible for all CS, IT, E&TC, MECHDo you want to chec
k admission status again? (Y/N):

Y
Welcome to SSN Institute of Engineering, Pune
Check your admission status by entering your respective marks
Enter your physics marks (0-100):
```

```
Enter your name: NIDHI
Hello, NIDHI!
Welcome to SSN Institute of Engineering, Pune
Check your admission status by entering your respective marks
Enter your physics marks (0-100): 80
Enter your chemistry marks (0-100): 81
Enter your maths marks (0-100): 82
Your total marks: 243.00
Your average marks: 81.00
Your grade: B
You are eligible to take admission in our college.
Please enter your entrance exam score: 83
Congrats, you are eligible for IT, E&TC, MECH
Do you want to check admission status again? (Y/N): N
Thank you, have a nice day!
PS C:\Users\hp5cd\OneDrive\Desktop\coding\c>
```

```
Enter your name: NIDHI
Hello, NIDHI!
Welcome to SSN Institute of Engineering, Pune
Check your admission status by entering your respective marks
Enter your physics marks (0-100): 40
Enter your chemistry marks (0-100): 40
Enter your maths marks (0-100): 40
Your total marks: 120.00
Your average marks: 40.00
Your grade: F
Sorry, you cannot take admission in our college
Do you want to check admission status again? (Y/N): N
Thank you, have a nice day!
PS C:\Users\hp5cd\OneDrive\Desktop\coding\c>
```

```
Enter your name: NIDHI
Hello, NIDHI!
Welcome to SSN Institute of Engineering, Pune
Check your admission status by entering your respective marks
Enter your physics marks (0-100): 90
Enter your chemistry marks (0-100): 91
Enter your maths marks (0-100): 92
Your total marks: 273.00
Your average marks: 91.00
Your grade: A
You are eligible to take admission in our college.
Please enter your entrance exam score: 59
Sorry, you are not qualified
Do you want to check admission status again? (Y/N): N
Thank you, have a nice day!
PS C:\Users\hp5cd\OneDrive\Desktop\coding\c>
```

Implement

Now we can say that output is implemented and our code is also running successfully.

We can implement the project for the admission process of students .

We know that Github is used by many people and in corporate sector. So publishing on Github will help us to reach out to a large number of consumers.

[Nidhiyadav411/Assignment2: basic program for admission process (github.com)]