

Name –Gajanan Purud

Assignment 2

1) Find the price of item when discount is given (specify different discount based on price)

```
#include <stdio.h>

int main() {

float price, discount = 0.0, finalPrice;

printf("Enter the original price of the item: ");

scanf("%f", &price);

if (price >= 10000) {

discount = 0.20;

} else {

if (price >= 5000) {

discount = 0.15;

} else {

if (price >= 1000) {

discount = 0.10;

} else {

discount = 0.05;

}

}

}

finalPrice = price - (price * discount);

printf("Discount applied: %.0f%%\n", discount * 100);

printf("Final price after discount: %.2f\n", finalPrice);

return 0;
```

```

}

```

The screenshot shows a web browser with the URL `programiz.com/c-programming/online-compiler/`. The page title is "Online C Compiler - Programiz". The code editor contains the following C program:

```

1 #include <stdio.h>
2 int main() {
3     float price, discount = 0.0, finalPrice;
4     printf("Enter the original price of the item: ");
5     scanf("%f", &price);
6     if (price >= 10000) {
7         discount = 0.20;
8     } else {
9         if (price >= 5000) {
10            discount = 0.15;
11        } else {
12            if (price >= 1000) {
13                discount = 0.10;
14            } else {
15                discount = 0.05;
16            }
17        }
18    }
19    finalPrice = price - (price * discount);
20    printf("Discount applied: %.0f%%\n", discount * 100);
21    printf("Final price after discount: %.2f\n", finalPrice);
22    return 0;
23 }

```

The output window shows the following text:

```

Enter the original price of the item: 999
Discount applied: 5%
Final price after discount: 949.05

=== Code Execution Successful ===

```

At the bottom of the browser window, there is a Windows taskbar showing the date and time as 2:53 PM on 4/19/2025.

2) Write a program to find greatest of three numbers using nested if-else.

```
#include <stdio.h>
```

```
int main() {
```

```
int a, b, c;
```

```
printf("Enter three numbers: ");
```

```
scanf("%d %d %d", &a, &b, &c);
```

```
if (a > b) {
```

```
    if (a > c) {
```

```
        printf("%d is the greatest.\n", a);
```

```
    } else {
```

```
        printf("%d is the greatest.\n", c);
```

```
    }
```

```
} else {
```

```
    if (b > c) {
```

```
        printf("%d is the greatest.\n", b);
```

```
    } else {
```

```
        printf("%d is the greatest.\n", c);
```

```

    }

}

return 0;

}

```

The screenshot shows a web browser window with the URL `programiz.com/c-programming/online-compiler/`. The page title is "Online C Compiler - Programiz". The interface has a "Run" button and a "Share" button. The code editor on the left contains the following C code:

```

1 #include <stdio.h>
2 int main() {
3     int a, b, c;
4     printf("Enter three numbers: ");
5     scanf("%d %d %d", &a, &b, &c);
6     if (a > b) {
7         if (a > c) {
8             printf("%d is the greatest.\n", a);
9         } else {
10            printf("%d is the greatest.\n", c);
11        }
12    } else {
13        if (b > c) {
14            printf("%d is the greatest.\n", b);
15        } else {
16            printf("%d is the greatest.\n", c);
17        }
18    }
19    return 0;
20 }

```

The output window on the right shows the following text:

```

Enter three numbers: 4 5 6
6 is the greatest.

=== Code Execution Successful ===

```

At the bottom of the browser window, there is a Windows taskbar with various icons and a system tray showing the date and time as 2:54 PM on 4/19/2025.

3) Accept two numbers from user and an operator (+,-,/,*,%) based on that perform the desired operations.

```

#include <stdio.h>

int main() {

int num1, num2;

char op;

printf("Enter first number: ");

scanf("%d", &num1);

printf("Enter an operator (+, -, *, /, %%): ");

scanf(" %c", &op);

printf("Enter second number: ");

scanf("%d", &num2);

if (op == '+') {

printf("Result: %d\n", num1 + num2);

```

```

    } else if (op == '-') {

printf("Result: %d\n", num1 - num2);

    } else if (op == '*')

printf("Result: %d\n", num1 * num2);

    } else if (op == '/') {

if (num2 != 0)

printf("Result: %d\n", num1 / num2);

else

printf("Error: Division by zero.\n");

    } else if (op == '%') {

if (num2 != 0)

printf("Result: %d\n", num1 % num2);

else

printf("Error: Modulo by zero.\n");

    } else {

printf("Invalid operator.\n");

    } return 0;

}

```

The screenshot displays a web browser window with the URL `programiz.com/c-programming/online-compiler/`. The page features a code editor on the left and an output window on the right. The code in the editor is a C program that takes two numbers and an operator as input and performs the corresponding arithmetic operation. The output window shows the program's execution with the input values 4, 3, and the operator '+', resulting in 'Result: 1'. A status message '=== Code Execution Successful ===' is also present. The browser's taskbar at the bottom shows the system time as 11:19 PM on 4/15/2025.

```

main.c
1 #include <stdio.h>
2 int main() {
3     int num1, num2;
4     char op;
5     printf("Enter first number: ");
6     scanf("%d", &num1);
7     printf("Enter an operator (+, -, *, /, %): ");
8     scanf(" %c", &op); // space before %c to consume newline
9     printf("Enter second number: ");
10    scanf("%d", &num2);
11    if (op == '+') {
12        printf("Result: %d\n", num1 + num2);
13    } else if (op == '-') {
14        printf("Result: %d\n", num1 - num2);
15    } else if (op == '*') {
16        printf("Result: %d\n", num1 * num2);
17    } else if (op == '/') {
18        if (num2 != 0)
19            printf("Result: %d\n", num1 / num2);
20        else
21            printf("Error: Division by zero.\n");
22    } else if (op == '%') {
23        if (num2 != 0)
24            printf("Result: %d\n", num1 % num2);
25        else
26            printf("Error: Modulo by zero.\n");
27    } else {
28        printf("Invalid operator.\n");

```

Output

```

Enter first number: 4
Enter an operator (+, -, *, /, %): +
Enter second number: 3
Result: 1

=== Code Execution Successful ===

```

Activate Windows
Go to Settings to activate Windows.

4) Display a menu to the user (like 1.Even Odd 2. Basic salary etc), ask the user to enter his choice, then based on that perform the desired operations.

```
#include <stdio.h>

int main() {

int choice;

printf("- MENU \n");

printf("1. Check Even or Odd\n");

printf("2. Calculate Gross Salary\n");

printf("Enter your choice (1 or 2): ");

scanf("%d", &choice);

if (choice == 1) {

int num;

printf("Enter a number: ");

scanf("%d", &num);

if (num % 2 == 0)

printf("%d is Even\n", num);

else

printf("%d is Odd\n", num);

} else if (choice == 2) {

float basic, hra, da, gross;

printf("Enter Basic Salary: ");

scanf("%f", &basic); hra = 0.20 * basic;

da = 0.80 * basic;

gross = basic + hra + da;

printf("Gross Salary: %.2f\n", gross);

} else {

printf("Invalid choice.\n");

}

return 0;
```

```

}

```

```

1 #include <stdio.h>
2 int main() {
3     int choice;
4     printf("- MENU \n");
5     printf("1. Check Even or Odd\n");
6     printf("2. Calculate Gross Salary\n");
7     printf("Enter your choice (1 or 2): ");
8     scanf("%d", &choice);
9     if (choice == 1) {
10        int num;
11        printf("Enter a number: ");
12        scanf("%d", &num);
13        if (num % 2 == 0)
14            printf("%d is Even\n", num);
15        else
16            printf("%d is Odd\n", num);
17    } else if (choice == 2) {
18        float basic, hra, da, gross;
19        printf("Enter Basic Salary: ");
20        scanf("%f", &basic); hra = 0.20 * basic;
21        da = 0.80 * basic;
22        gross = basic + hra + da;
23        printf("Gross Salary: %.2f\n", gross);
24    } else {
25        printf("Invalid choice.\n");
26    }
27    return 0;
28 }

```

```

- MENU
1. Check Even or Odd
2. Calculate Gross Salary
Enter your choice (1 or 2): 1
Enter a number: 20
20 is Even

=== Code Execution Successful ===

```

5) Accept the price from user. Ask the user if he is a student (user may say yes or no). If he is a student and he has purchased more than 500 then discount is 20% otherwise discount is 10%. But if he is not a student then if he has purchased more than 600 discount is 15% otherwise there is not discount.

```

#include <stdio.h>

#include <string.h>

int main() {

    float price, discount = 0.0, finalPrice;

    char isStudent[10];

    printf("Enter the total purchase amount: ");

    scanf("%f", &price);

    printf("Are you a student? (yes/no): ");

    scanf("%s", isStudent);

    if (strcmp(isStudent, "yes") == 0 || strcmp(isStudent, "Yes") == 0) {

        if (price > 500) {

            discount = 0.20;

        } else {

```

```

        discount = 0.10;
    }
} else {
if (price > 600) {

    discount = 0.15;

    } else {

        // Otherwise no discount

        discount = 0.0;

    }

}

finalPrice = price - (price * discount);

printf("Discount applied: %.0f%%\n", discount * 100);

printf("Final price after discount: %.2f\n", finalPrice);

return 0;

}

```

The screenshot shows a web browser window with the URL `programiz.com/c-programming/online-compiler/`. The page title is "Online C Compiler - Programiz". The main content area is divided into two sections: a code editor on the left and an output window on the right.

The code editor contains the following C code:

```

1 #include <stdio.h>
2 #include <string.h>
3 int main() {
4     float price, discount = 0.0, finalPrice;
5     char isStudent[10];
6     printf("Enter the total purchase amount: ");
7     scanf("%f", &price);
8     printf("Are you a student? (yes/no): ");
9     scanf("%s", isStudent);
10- if (strcmp(isStudent, "yes") == 0 || strcmp(isStudent, "Yes") == 0) {
11- if (price > 500) {
12-     discount = 0.20;
13- } else {
14-     discount = 0.10;
15- }
16- } else {
17- if (price > 600) {
18-     discount = 0.15;
19- } else {
20-     // Otherwise no discount
21-     discount = 0.0;
22- }
23- }
24- }
25 finalPrice = price - (price * discount);
26 printf("Discount applied: %.0f%%\n", discount * 100);
27 printf("Final price after discount: %.2f\n", finalPrice);
28 return 0;

```

The output window shows the following text:

```

Enter the total purchase amount: 2
Are you a student? (yes/no): yes
Discount applied: 10%
Final price after discount: 1.80

=== Code Execution Successful ===

```

At the bottom of the browser window, there is a Windows taskbar showing the date and time as 3:01 PM on 4/19/2025, and the system language as ENG IN.