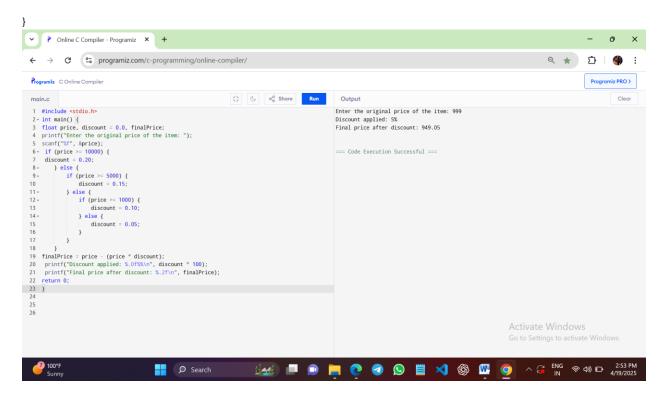
Name -Gajanan Purud

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;
```



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

```
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);
    }
}
```

#include <stdio.h>

```
}
       }
       return 0;
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       main.c
       Enter three numbers: 4 5 6 6 is the greatest.
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              } else {
    if (b > c) {
        printf("%d is the greatest.\n", b);
    } else {
        printf("%d is the greatest.\n", c);
    }
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```

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;
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   main.c
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1 #include <stdio.h>
                                                                                                             Enter first number: 4
  1 #include sstdio.h>
2- int main() {
3     int numl, num2;
4    char op;
5    printf("Enter first number: ");
6    scanf("%d", &numl);
7    printf("Enter an operator (*, -, *, /, %%): ");
8    scanf("%d", &numl);
10    scanf("%d", &numl);
11- if (op = '*') {
12         printf("Result: %d\n", numl + num2);
13- } else if (op = '-') {
                                                                                                             Enter an operator (+, -, *, /, %): /
Enter second number: 3
Result: 1
                                                                                                             === Code Execution Successful ===
  printf("Result: %d\n", num1 / num2);
else
          else

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

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

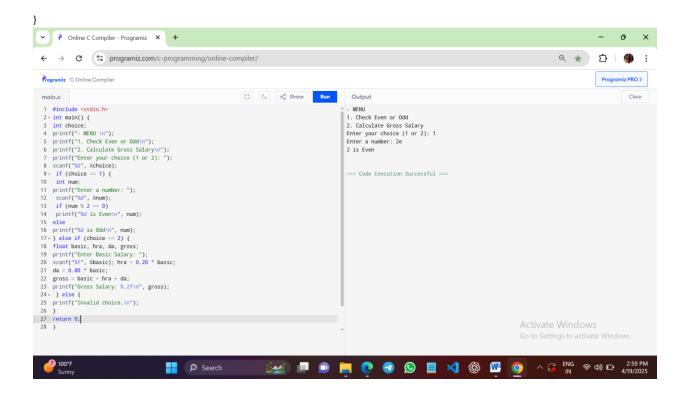
if (num2 != 0)

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

else
  23
24
25
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27 =
28
          else
    printf("Error: Modulo by zero.\n");
} else {
    printf("Invalid operator.\n");
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```

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);
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;
```



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 than 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) {
      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;
}
```

