Practice questions

Topic: if else

1. Write a program to find maximum between two numbers.
2. Write a program to find maximum between three numbers.
3. Write a program to check whether a number is negative, positive or zero.
4. Write a program to check whether a number is divisible by 5 and 11 or not.
5. Write a program to check whether a number is even or odd.
6. Write a program to check whether a year is leap year or not.
7. Write a program to check whether a character is alphabet or not.
8. Write a program to input any alphabet and check whether it is vowel or consonant.
9. Write a program to input any character and check whether it is alphabet, digit or special character.

Solutions

```c
/**
 * C program to find maximum between two numbers
 */

#include <stdio.h>

int main()
{
    int num1, num2;

    /* Input two numbers from user */
    printf("Enter two numbers: ");
    scanf("%d%d", &num1, &num2);

    /* If num1 is maximum */
    if(num1 > num2)
    {
        printf("%d is maximum", num1);
    }

    /* If num2 is maximum */
    if(num2 > num1)
    {
        printf("%d is maximum", num2);
    }

    /* Additional condition check for equality */
    if(num1 == num2)
    {
        printf("Both are equal");
    }

    return 0;
}
```

```c
/**
 * C program to find maximum between two numbers
 */
```

```c
#include <stdio.h>

int main()
{
    int num1, num2;

    /* Input two numbers from user */
    printf("Enter two numbers: ");
    scanf("%d%d", &num1, &num2);

    /* Compare num1 with num2 */
    if(num1 > num2)
    {
        /* True part means num1 > num2 */
        printf("%d is maximum", num1);
    }
    else
    {
        /* False part means num1 < num2 */
        printf("%d is maximum", num2);
    }

    return 0;
}
```

```c
/**
 * C program to find maximum between three numbers using ladder if else
 */

#include <stdio.h>

int main()
{
    int num1, num2, num3, max;

    /* Input three numbers from user */
    printf("Enter three numbers: ");
    scanf("%d%d%d", &num1, &num2, &num3);


    if((num1 > num2) && (num1 > num3))
    {
        /* If num1 is greater than both */
        max = num1;
    }
    else if((num2 > num1) && (num2 > num3))
    {
        /* If num2 is greater than both */
        max = num2;
```

```
    }
    else if((num3 > num1) && (num3 > num2))
    {
        /* If num3 is greater than both */
        max = num3;
    }

    /* Print maximum number */
    printf("Maximum among all three numbers = %d", max);

    return 0;
}
```

```
/**
 * C program to check positive negative or zero using if else
 */

#include <stdio.h>

int main()
{
    int num;

    /* Input number from user */
    printf("Enter any number: ");
    scanf("%d", &num);


    if(num > 0)
    {
        printf("Number is POSITIVE");
    }
    else if(num < 0)
    {
        printf("Number is NEGATIVE");
    }
    else
    {
        printf("Number is ZERO");
    }

    return 0;
}
```

```
/**
 * C program to check even or odd number
 */
```

```c
#include <stdio.h>

int main()
{
    int num;

    /* Input number from user */
    printf("Enter any number to check even or odd: ");
    scanf("%d", &num);

    /* Check if the number is divisible by 2 then it is even */
    if(num % 2 == 0)
    {
        /* num % 2 is 0 */
        printf("Number is Even.");
    }
    else
    {
        /* num % 2 is 1 */
        printf("Number is Odd.");
    }

    return 0;
}
```

```c
/**
 * C program to check Leap Year
 */

#include <stdio.h>

int main()
{
    int year;

    /* Input year from user */
    printf("Enter year : ");
    scanf("%d", &year);


    /*
     * If year is exactly divisible by 4  and year is not divisible by 100
     * or year is exactly divisible by 400 then
     * the year is leap year.
     * Else year is normal year
     */
    if(((year % 4 == 0) && (year % 100 !=0)) || (year % 400==0))
    {
        printf("LEAP YEAR");
    }
```

```
    else
    {
        printf("COMMON YEAR");
    }

    return 0;
}
```

```
/**
 * C program to check whether a character is alphabet or not
 */

#include <stdio.h>

int main()
{
    char ch;

    /* Input a character from user */
    printf("Enter any character: ");
    scanf("%c", &ch);


    if((ch >= 'a' && ch <= 'z') || (ch >= 'A' && ch <= 'Z'))
    {
        printf("Character is an ALPHABET.");
    }
    else
    {
        printf("Character is NOT ALPHABET.");
    }

    return 0;
}
```

```
/**
 * C program to check whether a character is vowel or consonant
 */

#include <stdio.h>

int main()
{
    char ch;

    /* Input character from user */
    printf("Enter any character: ");
    scanf("%c", &ch);
```

```
    /* Condition for vowel */
    if(ch=='a' || ch=='e' || ch=='i' || ch=='o' || ch=='u' ||
       ch=='A' || ch=='E' || ch=='I' || ch=='O' || ch=='U')
    {
        printf("'%c' is Vowel.", ch);
    }
    else if((ch >= 'a' && ch <= 'z') || (ch >= 'A' && ch <= 'Z'))
    {
        /* Condition for consonant */
        printf("'%c' is Consonant.", ch);
    }
    else
    {
        /*
         * If it is neither vowel nor consonant
         * then it is not an alphabet.
         */
        printf("'%c' is not an alphabet.", ch);
    }

    return 0;
}
```

```
/**
 * C program to check alphabet, digit or special character
 */

#include <stdio.h>

int main()
{
    char ch;

    /* Input character from user */
    printf("Enter any character: ");
    scanf("%c", &ch);


    /* Alphabet check */
    if((ch >= 'a' && ch <= 'z') || (ch >= 'A' && ch <= 'Z'))
    {
        printf("'%c' is alphabet.", ch);
    }
    else if(ch >= '0' && ch <= '9')
    {
        printf("'%c' is digit.", ch);
    }
    else
    {
        printf("'%c' is special character.", ch);
```

```
    }

    return 0;
}
```