Question 01

Code:

C programming > C num_to _month.c > main()

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

int main(){
    int x;
    printf("Enter the number : ");
    scanf("%d",&x);
    if(x==1){
        printf("January");
    }
    else if(x==2){
        printf("Feburary");
    }
    else if(x==3){
        printf("March");
    }
    else if(x==4){
        printf("April");
    }
    else if(x==5){
        printf("May");
    }
    else if(x==6){
        printf("June");
    }
    else if(x==7){
        printf("July");
    }
    else if(x==8){
        printf("August");
    }
    else if(x==9){
        printf("September");
    }
    else if(x==10){
        printf("October");
    }
    else if(x==11){
        printf("Novemeber");
    }
    else if(x==12){
        printf("December");
    }
    else {
        printf("Invalid Month");
    }
    return 0;
}
```

Problem Description:
Kate and her 7-year-old sister Tina were playing a spelling game. Kate will tell a number and Tina has to find the corresponding month and should spell the month. Can you write a C program to automate it? Accept a month in digit from the user. Display the corresponding month in words. If the number is not between 1 and 12 display the message “Invalid Month”.

Output:

```
Enter the number : 4
April
```

```
Enter the number : 9
September
```

```
Enter the number : 15
Invalid Month
```

Question 02

Code:

```c
int main(){
    int n,d;
    printf("Enter the number :");
    scanf("%d",&n);
    while(n!=0){
        d=n%10;
        if(d==0){
            printf("Not a Good Number");
            return 0;
            }
            n/=10;
        }
        printf("Is a Good number");
        return 0;
    }
```

Problem Description:
John is very much interested in Mathematics. One day when he was learning about different types of mathematical numbers, he came across a concept of “GOOD Number”. If there is no “Zero” in the number, then it is a GOOD number. John is a beginner in C programming and he needs your help to solve it.

Output:

```
Enter the number :3504
Not a Good Number
```

```
Enter the number :983
Is a Good number
```

Question 03

C 25_05_2022 > C char_occurance.c > main()

```c
#include <stdio.h>
#include <math.h>
#include <string.h>

int main(){
    char x[20];
    char y,z;
    int i,j,count;
    printf("Enter the string : ");
    scanf("%s",&x);
    printf("Enter the char to check : ");
    scanf("%s",&y);
    count=0;
    for(i=0; i<=strlen(x); i++){
        z=x[i];
        if(z==y && count==0){
            for(j=0; j<=(i+1); i++){
                printf("%s",x[j]);
                printf(" First occurance\n");
                count=count+1;}}
        else {continue;}
    }
    if(count==0){
        printf("There is no occurance of %s",y);
    }
    else{
        count=0;
        for(i=0; i<=strlen(x); i++){
            z=x[-(i+1)];
            if(z=y && count==0){
                for(j=0; j<=(i+1); i++){
                    printf("%s",x[j]);
                    printf(" Last occurance\n");
                    count=count+1;}}
            else {continue;}
        }
    }
    return 0;
}
```

Problem description:
Stef is an intern in a Software Company. She finds it difficult to work on strings. She needs your help in one of her works in which she has to find the first and last occurrence of a given character in a string

Output:

```
Enter the string : Member
Enter the char to check : e
Me First occurance
Membe Last occurance
```

Question 04

C 25_05_2022 > C transpose-matrix.c > main()

```c
#include <stdio.h>
int main() {
  int a[10][10], t[10][10], r, c;
  printf("Enter rows and columns: ");
  scanf("%d %d", &r, &c);
  printf("\nEnter matrix elements:\n");
  for (int i = 0; i < r; ++i)
  for (int j = 0; j < c; ++j) {
    printf("Enter element a%d%d: ",i+1,j+1);
    scanf("%d", &a[i][j]);
  }
  printf("\nEntered matrix: \n");
  for (int i=0;i<r;++i)
  for (int j=0;j<c;++j) {
    printf("%d  ", a[i][j]);
    if (j==c-1)
    printf("\n");
  }
  for (int i=0;i<r;++i)
  for (int j=0;j<c;++j) {
    t[j][i]=a[i][j];
  }
  printf("\nt of the matrix:\n");
  for (int i=0;i<c;++i)
  for (int j=0;j<r;++j) {
    printf("%d  ", t[i][j]);
    if (j==r-1)
    printf("\n");
  }
  return 0;
}
```

Problem Description:
Debo is a school student whose favourite subject is Mathematics. Her teacher taught Matrices and she found it very interesting. Also, she is learning C programming. She thought of developing a C program to find the transpose of a matrix. She is not much familiar with nested loops. Help her to complete the code.

Output:

```
Enter rows and columns: 2 3

Enter matrix elements:
Enter element a11: 1
Enter element a12: 2
Enter element a13: 3
Enter element a21: 4
Enter element a22: 5
Enter element a23: 6

Entered matrix:
1  2  3
4  5  6

t of the matrix:
1  4
2  5
3  6
```

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PPS NON-ELAB QUESTIONS
