

Task-3A

Solving Programming problems by implementing necessary control statements.

Aim:-

To solve programming problems by implementing the necessary control statements.

Algorithm

Start

Take integer variable x .

Divide the variable x with $(x-1 \text{ to } 2)$

If A is divisible by any value $(x-1 \text{ to } 2)$ it is not prime.

Print result.

```
#include <stdio.h> #include  
<string.h>  
int main() {  
    char sentence[100]; char  
    replace_char;  
    printf("Enter a sentence:");  
    fgets(sentence,100,stdin);  
    printf("Enter a character to  
    replace:"); scanf("%c"  
    &replace_char);  
    for (inti=  
    0;i<strlen(sentence);  
    i++) { if (sentence[i] ==  
    replace_char) {  
        sentence[i]= '#';  
    }  
    printf("Modified sentence:  
    %s", sentence); return 0;  
    }
```

Task 3bAim :-

To write a program that generates a random number and asks the user to guess what the number is. If the user's guess is higher than the random number, the program should display "Too high, try again". If the user's guess is lower than the random number, the program should display "Too low, try again". The program should use a loop that repeats until the user correctly guesses the random number.

Algorithm

Generate a random number between a specified range.
Initialize a loop that will run until the user correctly guesses the random number.
Ask the user to enter a guess is equal to the random.
If it is, exit the loop and print a message congratulating the user.
If the guess is higher than the random number, print a message saying "Too high, try again".
If the guess is lower than the random number, print a message saying "Too low, try again".
Repeat Step 3-6 until the user correctly guesses the random number.
End the program.

```
#include <stdio.h>
#include <stdlib.h>
#include <time.h>
int main() {
    srand(time (0));
    int randomNumber =
    rand( % 100 + 1; int guess;
    do {
        printf("Guess the number
        between 1 and 100: ");
        scanf("%d", &guess);
        if (guess >
            randomNumber) {
            printf("Too high, try again.
            (n");
        } else if (guess <
            randomNumber) {
            printf("Too low, try again.
            (n");
        } while (guess !=
            randomNumber);
        printf("Congratulations!
        You guessed the number
        %d.\n" randomNumber);
        return 0;
    }
```


Output

Guess the number between 1 and 100 : 80

Too low, try again

Guess the number between 1 and 100 : 89

Too high, try again

Guess the number between 1 and 100 : 82

Too low, try again

Guess the number between 1 and 100 : 83

Congratulations! You guessed the number 83

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PERFORMANCE (5)	5
RESULT AND ANALYSIS (3)	3
VIVA VOCE (3)	3
RECORD (4)	4
TOTAL (15)	18
SIGN WITH DATE	22/8

Result:-

Thus, the programs are verified and executed successfully.