PRACTICE CODES

1.leap yr

```
#include <stdio.h>
int main()
int checkYear(int n){
   return 1;
}
   else if(n%100==0){
   return 0;
}
   else if(n%4==0){
   return 1;
}
   else{
   return 0;
}
```

2.sum of digits

```
 #include <stdio.h>
int main()
   int sumOfDigits(int n){
      int sum=0;
      while(n>0){
         sum +=n%10;
         n=n/10;
   }
      return sum;
}
```

3.prime number

```
#include <stdio.h>

int main() {
   int n, i, count = 0;
```

```
    printf("Enter a number: ");
    scanf("%d", &n);

    if (n <= 1) {
        printf("false");
        return 0;
    }

for (i = 1; i <= n; i++) {
        if (n % i == 0) {
            count++;
        }
    }

    if (count == 2)
        printf("true");
    else
        printf("false");

    return 0;
}
```

4.switch case

```
#include <stdio.h>
int main() {
    int day;
    printf("enter a day");
    scanf("%d",&day);
    switch(day){
        case 1:
            printf("monday");
            break;
        case 2:
            printf("tuesday");
            break;
        case 3:
            printf("wednesday");
            break;
        case 4:
```

```
            printf("thursday");
            break;
        case 5:
            printf("friday");
            break;
        case 6:
            printf("saturday");
            break;
        case 7:
            printf("sunday");
            break;
        default:
            printf("invalid day");

    }
    return 0;
}
```

5.Fibonacci series

```
#include<stdio.h>
int main(){

    int n,a=2,b=3,temp,i;

    printf("enter a number of terms:");
    scanf("%d",&n);

    printf("fibonacci series:");

    for(i=2;i<=n;i++){
        printf("%d",a);
        temp=a+b;
        a=b;
        b=temp;
    }
    return 0;
}
```

6.finding max and min digit

```
#include <stdio.h>
#include <stdlib.h>
int main(){
    int n;
    scanf("%d",&n);
    n=abs(n);
    int max=0;
    int min=9;
    if(n==0){
        printf("0 0\n");
        return 0;
    }
    while(n>0){
        int digit=n%10;
        if(digit>max)
            max=digit;
        if(digit<min)
            min=digit;
            n=n/10;
    }
    printf("%d %d\n",max,min);
    return 0;
}
```

7.Reverse the number

```
#include <stdio.h>

int main() {
    int num, reverse = 0, digit;

    printf("Enter a number: ");
    scanf("%d", &num);

    while (num != 0) {
        digit = num % 10;                 // Step 1
        reverse = reverse * 10 + digit;  // Step 2
        num = num / 10;                  // Step 3
    }
```

```
    printf("Reversed number: %d", reverse);

    return 0;
}
```

8.Armstrong number

```
#include <stdio.h>

int main() {
    int n, sum = 0, temp, digit;

    scanf("%d", &n);
    temp = n;

    for (; temp > 0; temp = temp / 10) {
        digit = temp % 10;
        sum = sum + digit * digit * digit;
    }

    if (sum == n)
        printf("Armstrong number");
    else
        printf("Not Armstrong number");

    return 0;
}
```

9.rectangle of stars

```
#include <stdio.h>

int main() {
    int r, c;
    scanf("%d %d", &r, &c);

    for (int i = 0; i < r; i++) {
        for (int j = 0; j < c; j++)
```

```
            printf("*");
        printf("\n");
    }
    return 0;
}
```

10.Staircase of stars

```
#include <stdio.h>

int main() {
    int n;
    scanf("%d", &n);

    for (int i = 1; i <= n; i++) {
        for (int j = 1; j <= i; j++)
            printf("*");
        printf("\n");
    }
    return 0;
}
```

11.square of stars

```
#include <stdio.h>
int main() {
    int i,j,n;
    scanf("%d ", &n);

    for (i = 0; i < r; i++) {
        for ( j = 0; j < c; j++)
            printf("*");
        printf("\n");
    }
    return 0;
}
```

12.Reverse an array

```
#include <stdio.h>

int main() {
    int n;
    scanf("%d", &n);

    int arr[n];

    // Read array elements
    for (int i = 0; i < n; i++) {
        scanf("%d", &arr[i]);
    }

    // Print in reverse order
    for (int i = n - 1; i >= 0; i--) {
        printf("%d ", arr[i]);
    }

    return 0;
}
```

13.move zeros

```
#include <stdio.h>
void moveZeroes(int* nums, int numsSize) {
    int j = 0;
    for (int i = 0; i < numsSize; i++) {
        if (nums[i] != 0) {
            int temp = nums[i];
            nums[i] = nums[j];
            nums[j] = temp;
            j++;
        }
    }
}
```

14.missing numbers

```c
#include <stdio.h>
int missingNumber(int* nums, int numsSize) {
    int n = numsSize;

    int expectedSum = n * (n + 1) / 2;
    int actualSum = 0;

    for (int i = 0; i < numsSize; i++) {
        actualSum += nums[i];
    }

    return expectedSum - actualSum;
}
```

15.pointer in an array

```c
#include <stdio.h>
int main(){
    int a[4]={10,20,30,40};
    int*p=a;
    int sum=0;
    for(int i=0;i<4;i++){
        sum = sum+ *(p+i);
    }
    printf("sum=%d",sum);
    return 0;
}
```

16.swap using pointer

```c
#include <stdio.h>

void swap(int *a, int *b) {
    int temp;

    temp = *a;   // store value of a
    *a = *b;     // assign value of b to a
    *b = temp;   // assign temp to b
}
```

```
int main() {
    int x, y;

    printf("Enter two numbers: ");
    scanf("%d %d", &x, &y);

    swap(&x, &y);

    printf("After swapping:\n");
    printf("x = %d, y = %d", x, y);

    return 0;
}
```

17.union

```
#include <stdio.h>
union data{
    int i;
    float f;

};
int main(){
    union data d;
    d.i=10;
    printf("integer: %d\n",d.i);
    d.f=5.5;
    printf("Float: %d\n",d.f);
    printf("Integer after float stored: %d\n",d.i);
}
```

18.from a string finding the vowel

```
#include <stdio.h>

int main() {
    char str[100];

    printf("Enter a string: ");
```

```
    fgets(str, sizeof(str), stdin);

    printf("Vowels in the string are: ");



    for (int i = 0; str[i] != '\0'; i++) {
        char ch = str[i];

        if (ch == 'a' || ch == 'e' || ch == 'i' || ch == 'o' || ch == 'u' ||
            ch == 'A' || ch == 'E' || ch == 'I' || ch == 'O' || ch == 'U') {
            printf("%c ", ch);
        }
    }

    return 0;
}
```