

i) #include <stdio.h>
int main() {
 int number;
 printf("Enter a number:");
 scanf("%d", &number);
 if (number < 10) {
 printf("one digit");
 }
 return 0;
}

Output:
Enter a number:
one digit

ii) #include <stdio.h>
int main() {
 int number;
 printf("Enter a number:");
 scanf("%d", &number);
 if (number >= 10 && number < 100) {
 printf("two digit");
 }
 return 0;
}

Output:
Enter a number:
Two digit

iii) #include <stdio.h>
int main() {
 int number;
 printf("Enter a number:");
 scanf("%d", &number);
 if (number >= 10 && number < 100) {
 printf("Two digit\n");
 }
 else if (number < 10 && number >= 10) {
 printf("one digit\n");
 }

```
else {
    printf("Integers\n");
}
return 0;
}
```

Output:
Enter a number
5
one digit.

a) #include <stdio.h>

```
int main() {
    int year;
    printf("Enter a year:");
    scanf("%d", &year);
    if ((year % 400 == 0) || (year % 4 == 0 && year % 100 != 0)) {
        printf("%d is a leap year.\n", year);
    } else {
        printf("%d is not a leap year.\n", year);
    }
    return 0;
}
```

Output:

Enter a year: 2024

2024 is a leap year.

Enter a year: 2023

2023 is not a leap year.

b) #include <stdio.h>

```
int main() {
    char ch;
    printf("Enter a character:");
    scanf("%c", &ch);
    if ((ch >='a' && ch <='z') || (ch >='A' && ch <='Z')) {
        printf("%c is an alphabet.\n", ch);
    } else if (ch >='0' && ch <='9') {
```

```
    printf("%c is an digit.\n", ch);
```

```
}
```

```
else{
```

```
    printf("%c is a Special character.\n", ch);
```

```
}
```

```
return 0;
```

```
}
```

output

Enter a character: A

'A' is an alphabet.

Enter a character: 5

'5' is a digit

Enter a character: @

'@' is a Special character.

4) #include <stdio.h>

```
int main()
```

```
{
```

```
char ch;
```

```
printf("Enter an alphabet:");
```

```
scanf("%c", &ch);
```

```
// check if the character is an alphabet
```

```
if((ch>='a' && ch<='z') || (ch>='A' && ch<='Z')){
```

```
// check for vowels.
```

```
if (ch == 'a' || ch == 'e' || ch == 'i' || ch == 'o'
```

```
|| ch == 'u')
```

```
    ch == 'A' || ch == 'E' || ch == 'I' || ch == 'O' || ch == 'U')
```

```
{
```

```
    printf("%c is a vowel.\n", ch);
```

```
} else{
```

```
    printf("%c is a consonant.\n", ch);
```

```
}
```

```
} else{
```

```
    printf("%c is not an alphabet.\n", ch);
```

```
f  
    Returns;  
}
```

Output..

Enter an alphabet:A

'A' is a vowel

Enter an alphabet:Z

'Z' is a consonant.

Enter an alphabet :S

'S' is not an alphabet.

5) #include < stdio.h>

```
int main()
```

```
{ int day;
```

```
printf("Enter day number (1-7):");
```

```
scanf("%d", &day);
```

```
Switch (day){
```

```
case 1:
```

```
    printf ("Sunday\n");
```

```
Break;
```

```
case 2:
```

```
    printf ("Monday\n");
```

```
Break;
```

```
case 3:
```

```
    printf ("Tuesday\n");
```

```
Break;
```

```
case 4:
```

```
    printf ("Wednesday\n");
```

```
Break;
```

```
case 5:
```

```
    printf ("Thursday\n");
```

```
Break;
```

```
case 6:
```

```
    printf ("Friday\n");
```

```
Break;
```

Case 7:

```
printf("Saturday\n");
```

```
break;
```

default:

```
printf("Invalid day number! Please enter a number  
between 1 and 7:\n");
```

```
}
```

```
return 0;
```

```
}
```

Output:

```
Enter day number (1-7):3
```

```
Tuesday,
```