

C Language

Iterative Control instruction

Part - 2



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Agenda

- ① do-while loop
- ② for loop
- ③ break
- ④ continue

Entry Control loop

```
while (condition)
{
    =
}
int i=1;
while(i<=10)
{
    printf("%d",i);
    i++;
}
```

$1 \leq 10 \quad T$
 $2 \leq 10 \quad T$
 $3 \leq 10 \quad T$
 \vdots
 $10 \leq 10 \quad T$
 $11 \leq 10 \quad F$

Exit Control loop

do True
= False
} while (condition);

```
int i=1;
do
{
    printf("%d",i);
    i++;
} while(i<=10);
```

$2 \leq 10 \quad T$
 $3 \leq 10 \quad T$
 $4 \leq 10 \quad T$
 $10 \leq 10 \quad T$
 $11 \leq 10 \quad F$

Entry Control loop

```
for( ; ; )
```

=

```
int i;
```

```
for(i=1; i<=10; i++)
{
    printf("%d", i);
}
```

}

$1 \leq 10 \quad T$
 $2 \leq 10 \quad T$
 $3 \leq 10 \quad T$
 \vdots

$10 \leq 10 \quad T$
 $11 \leq 10 \quad F$

```
int main()
{
    int i=1;
```

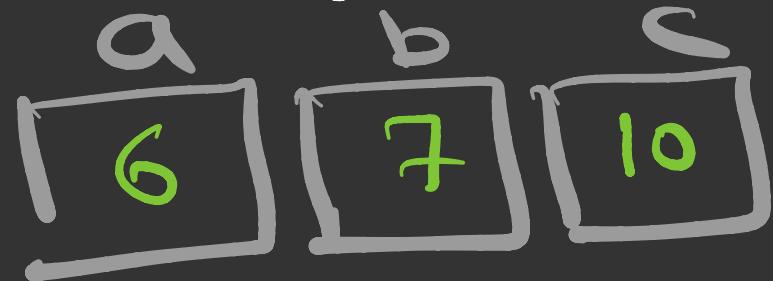
while () error

```
for ( ; ; )
{
    printf("%d ", i);
    i++;
}
```

```
}
```

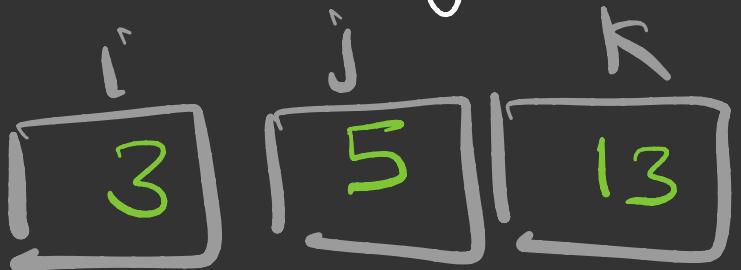
Find Output of the program

```
int main()
{
    int a=2,b=-1,c;
    do
    {
        c=a+b+1;
        printf("%d", c);
        a=b+1;
        b=a+1;
    } while(c<10);
}
```



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Find output of the program



```
int main()
{
```

```
    int i, j, k;
```

```
    for (i=0; i<3; i++)
    {
```

```
        j = i*2+1;
```

```
        k = j*3-2;
```

```
}
```

```
    printf ("%d %d %d", i, j, k);
```

```
}
```

3 5 13

break

while(condition)

{

 break;

}

.

- **break** is a keyword
- It can be used in the body of loop or in the body of switch.
- When **break** encounters loop terminates and control move out of the loop body.

i=1;

while (i<=100)

{

if (—)

break;

i++;

}

Write a program which asks user to enter an even number, computer will give user at most 3 chances, if user failed to answer in all of the chances, "Game Over" message should be displayed on the screen, otherwise "You Win" message should be displayed and game stops immediately.

Win → even number in any chance

Game over → wrong/odd input in all the three chances

Write a program to add numbers entered by user. User can enter any number of numbers until he enters 0.

Continue

while (condition)

{

==

 Continue;

==

}



- continue is a keyword
- continue can only be used in the body of loop.
- continue transfers the control to the next iteration.