


DSA DAY 12 { While Loop & Do While Loop }

Surfire Sensei



for loop ✓

while loop ✓

for (int $i=1$; $i \leq n$; $i++$)

{

cout << i;

}

initize

1 to n

Break

update

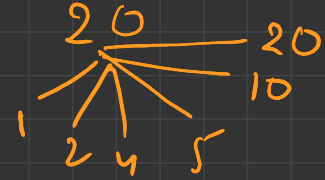
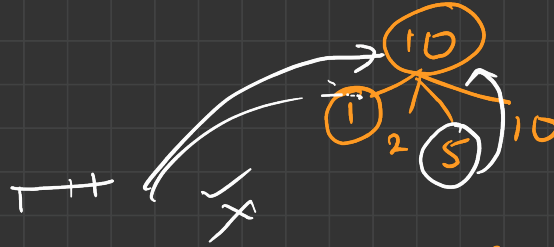
initiaze; ✓
while(Breaking condition) {

update; ✓
}

1 to n
int i=1
n=5
i=x-2 3
4
5
6
while(i ≤ n) {
✓ ✓ cout << i << " ";
✓ i++;
}
1
2
3
4
5

'n'

logic:-?



int n;

int i = 1;

```
while(i <= n) {  
    if (n % i == 0) {  
        cout << i;  
    }  
    i++  
}
```

n = 6

i = ~~1~~ ~~2~~ ~~3~~ ~~4~~ ~~5~~ 6

1, 2, 3, 6

H.W

Print
Print
Print

Table
odd even

```
x
x x
x x x
x x x x
x x x x x
```

Do while loop

① initize

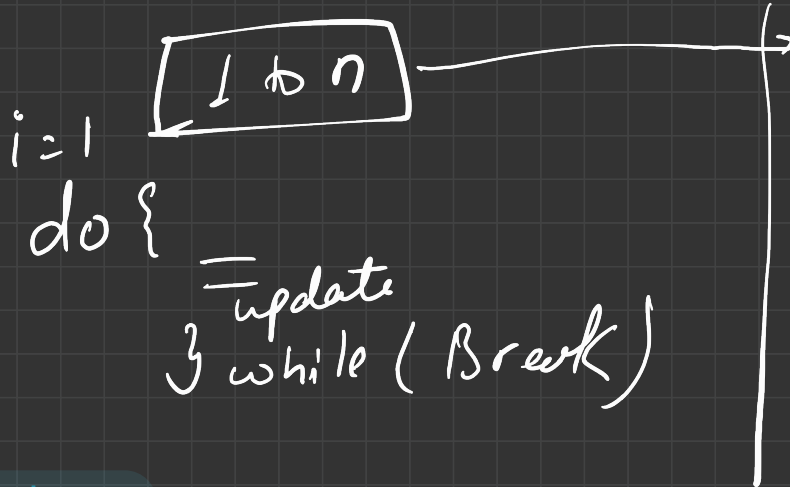
② Break

③ update

① initize

② update

③ Break



$i = 1$

```
do {  
    cout << i;  
    i++;  
} while (i <= n);
```

Break & Continue

Break 1 to n

$n = 11$

```
while (i <= n) {  
    if (i == 11) {  
        break;  
    }  
    count < i;  
    i++;  
}
```

1, 2, 3, 4, 5, 6, 7
8, 9, 10, ...

```
while (i < 11) {
```

```
    count < i;
```

```
    i++;
```

```
}
```

✓ $n = 1000$
✓ $n = 11$

$i = 11 \{$

break;

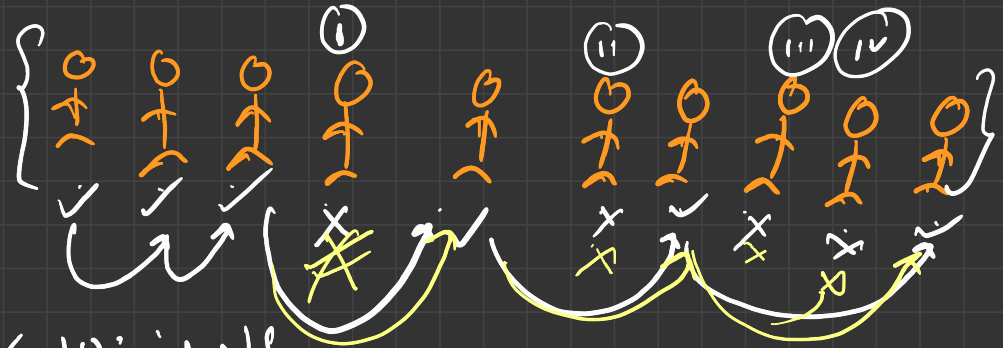
}

—

—

✓

continue



```
for(i=1; i<=10; i++)
```

```
{ if (i == Dib) { ✓
```

```
    continue;
```

```
}
```

```
    cout << i; }
```

Switch

if - else

```
if i=1 Mon
else if i=2 Tue
    " " Wed
    " " Thur
    " " Fri
    " " Sat
    " " Sun
else -
```

Char int

```
int i;
Switch ( " ) {
```

case 1:

cout << "Mon"

Break

case 2:

cout << "Tue"

Break

Default:

cout << "___";

)

Scope of variable

```
int main() {  
    int i;  
    {  
        int a;  
    }  
}
```

}

```
{  
    [E-] {  
        int main() {  
            int i;  
            int i;  
        }  
    }  
}
```

Diagram illustrating variable scope with nested blocks and arrows indicating the flow of execution and scope resolution.

