

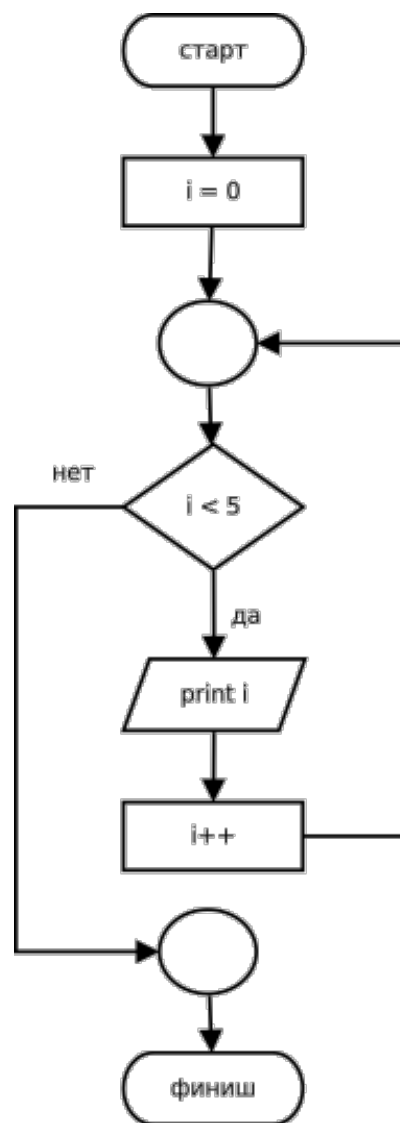
C++ da `{for}` operatorini  
qo'llanishi.

# Amaliy mashg'ulotning maqsadi

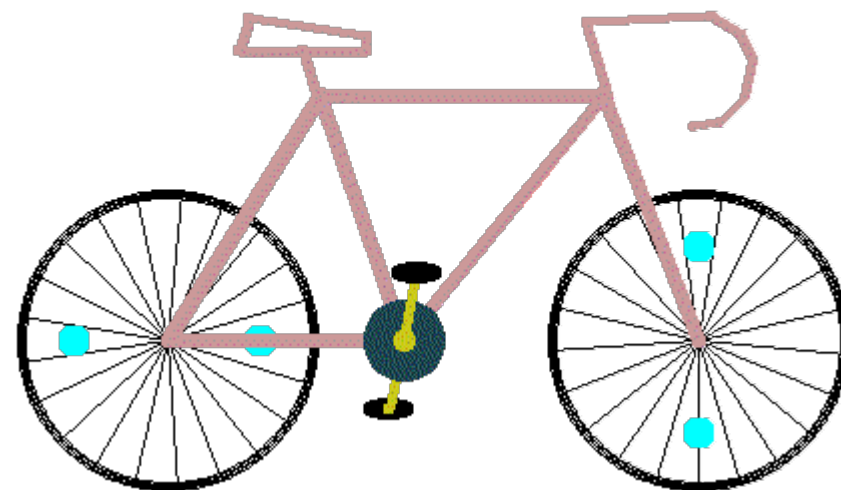
- {for} operatorini qo'llanilish saohasi va o'ziga hosligini o'rganish, for operatorini qo'llash ko'nikmasiga ega bo'lish.
- Sikl haqida ma'lumotga ega bo'lish va ularni qo'llash ko'nikmasiga ega bo'lish.

# Sikl bu...

- Sikl - bu maxsus operator bo'lib, uning yordamida kodning ma'lum bir qismi ma'lum bir necha marta takrorlanadi (kodning qaysi qismi takrorlanishi va tsiklni qachon to'xtatish kerakligi dasturchi tomonidan belgilanadi).

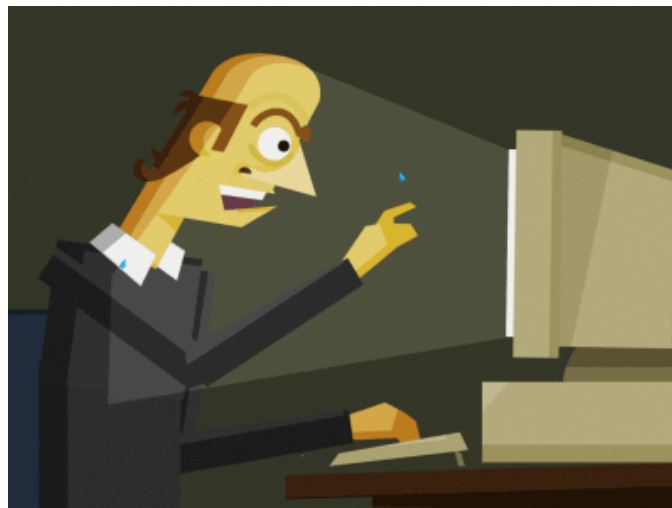


code	output
<pre>1 a = 1 2 while a &lt; 10: 3   print (a) 4   a += 2</pre>	
variables	



# Nimaga sikl?...

- Masalan, birdan besh yuzgacha bo'lgan raqamlarni ko'rsatish uchun siz qo'lda quyidagi ketmaketlikdan foydalanishingiz mumkin:



```
cout << 1 << endl;  
cout << 2 << endl;  
cout << 3 << endl;  
cout << 4 << endl;  
cout << 5 << endl;
```

.....

```
cout << 500 << endl;
```

- Tan oling - eng qiziqarli vazifa emas va kodning oxiriga o'tish uchun sichqonchanning g'ildiragini qancha aylantirishingiz kerakligini tasavvur qiling. Yoki for tsiklidan foydalanishingiz mumkin va shu bilan ushbu "qiziqarli" dasturni yozish vaqtini va kod hajmini o'nlab marta qisqartirishingiz mumkin. Quyidagilar yordamida bu vazifani qanday bajarishingiz mumkin:

```
1  #include <iostream>
2  using namespace std;
3
4  int main()
5  {
6  for (int i = 0; i < 500; i++)
7  {
8  cout << i + 1 << endl;
9  }
10 return 0;
11 }
12
```

```
1 #include <iostream>
2 using namespace std;
3
4 int main()
5 {
6     for (int i = 0; i < 500; i++)
7     {
8         cout << i + 1 << endl;
9     }
10    return 0;
11 }
12
```

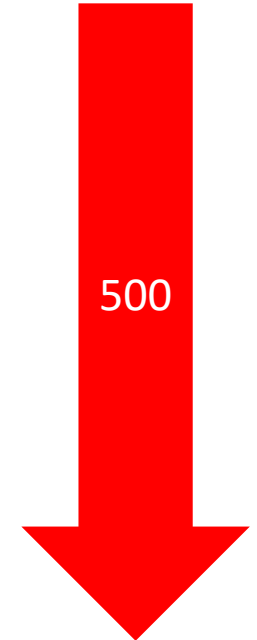
for (int i = 0; i < 500; i++)

- ()-Aperator bajarishi kerak bo'lgan shartlar kiritiladi
- i- hisoblagich
- Barcha belgilanishlar ; bilan belgilanadi

```
1 #include <iostream>
2 using namespace std;
3
4 int main()
5 {
6 for (int i = 0; i < 500; i++)
7 {
8 cout << i + 1 << endl;
9 }
10 return 0;
11 }
12
```



```
1 #include <iostream>
2 using namespace std;
3
4 int main()
5 {
6 for (int i = 0; i < 500; i--)
7 {
8 cout << i + 1 << endl;
9 }
10 return 0;
11 }
12
```



```
for ( int i = 8; i <= 88; i += 8 )
```

Nazorat o'zgaruvchisi i 8 dan 88 gacha o'zgaradi, o'zgartirish bosqichi esa 8. Ya'ni, birinchi navbatda i = 8, ikkinchi iteratsiyada 16 va hokazo 88 gacha.

```
for ( int i = 3000; i >= 300; i -= 300 )
```

boshqaruv o'zgaruvchisi i 3000 dan 300 gacha o'zgaradi, har bir iteratsiyada 300 ga kamayadi (3000, 2700, 2400 ...)

```
for (int i = 0; i <= 100; i += 10)
```

nazorat o'zgaruvchisi i har bir iteratsiyada 10 ga ortib, 0 dan 100 gacha o'zgaradi (0, 10, 20...100)

```
for (int i = 3000; i >= 3; i /= 10)
```

boshqaruv o'zgaruvchisi i 3000 dan 3 ga o'zgaradi, har bir iteratsiyada 10 ga bo'linadi (3000, 300, 30, 3)



```
1 #include <iostream>
2 using namespace std;
3
4 int main()
5 {
6     int i = 1;
7
8     for (;;)
9     {
10        cout << i << endl;
11
12        if (i == 5)
13            break;
14        i++;
15    }
16
17    return 0;
18 }
```

