

## JAVASCRIPT DA SHARTLAR (IF, ELSEIF). JAVA SCRIPTDA SIKLLAR (WHILE, FOR, DO WHILE)

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**Anotatsiya:** Ushbu tezis JavaScript da Shartlar (if, elseif) va Sikllar (while, for, do while) mavzusini tushuntirishga qaratilgan. Bu erda shartli operatorlar nima ekanligi, qanday turlari borligi, qanday tartibda ishlaydiganligi haqida ma'lumot beriladi. Shuningdek, takrorlanish operatorlari nima ekanligi, qanday turlari borligi, qanday qiymat qaytaradiganligi haqida ma'lumot beriladi.

**Kalit so'zlar:** JavaScript, shartlar, if, else if, else, sikllar, while, for, do while.

JavaScript dasturlash tilida shartlar (if, else if) va sikllar (while, for, do while) dasturlashning muhim asosiy qavramlari hisoblanadi. Bu qavramlar dasturda shartlarni tekshirish, belgilangan amallarni bajarish va kodni takrorlash imkonini beradi.

Shartlar (if, else if):

if operatori belgilangan shartni tekshiradi. Agar shart rost bo'lsa, belgilangan amallar bajariladi. Aks holda, shart bajarilmaydi va kodning keyingi qismiga o'tiladi.

else if operatori bir nechta shartlarni tekshiradi. Agar birinchi shart rost bo'lmasa, ikkinchi shartni tekshiradi. Agar ikkinchi shart rost bo'lsa, belgilangan amallar bajariladi. Aks holda, ikkinchi shart bajarilmaydi va keyingi shartlarni tekshirish davom ettiriladi.

else operatori barcha oldingi shartlarni bajarilmagan holatlarda ishlatiladi. Agar barcha oldingi shartlar rost bo'lmasa, else qismidagi belgilangan amallar bajariladi.

Sikllar (while, for, do while):

while sikli shart bajarilganida belgilangan amallarni takrorlaydi. Siklning boshida shartni tekshiradi va agar shart rost bo'lsa, amallar takrorlanadi. Siklarning bajarilishi shartni tekshirish bilan to'xtaydi.

for sikli boshlang'ich qiymat, shart va o'zgaruvchi o'zgaruvchilarini o'z ichiga olgan sikldir. Siklarning bajarilishi o'zgaruvchi qiymatining o'zgarishiga bog'liq bo'lib, shart bajarilganida amallar takrorlanadi.

do while sikli shartni tekshirishdan oldin belgilangan amallarni bajaradi va keyin shart bajarilganida takrorlanadi. Siklarning bajarilishi shartni tekshirishdan so'ng bo'lib, amallar kamida bir marta bajariladi.

Shartlar va sikllar JavaScript dasturlashda bo'g'liq amallarni bajarish, kodni takrorlash va dastur boshqarish uchun qulayliklar yaratadi. Anotatsiyalar va kalit so'zlar bu qavramlarni tushuntirish va dastur kodini o'qishni osonlashtirishda yordam beradi. To'g'ri foydalanish bilan JavaScriptda to'g'ri va samarali kod yozish mumkin.

Bir misol bilan davom etaylik. Quyidagi JavaScript kodida if operatori va while sikli ishlatilgan:

```
let count = 1;
while (count <= 5) {
  if (count % 2 === 0) {
    console.log(count + " juft son");
```

```

} else {
    console.log(count + " toq son");
}
count++;
}

```

Bu misol while sikli orqali 1 dan 5 gacha sonlarni tekshirib, har bir sonning juft yoki toq sonligini aniqlaydi.

count o'zgaruvchisi boshlang'ich qiymat bilan 1 ga teng bo'lib oladi. Siklida count qiymati 5 dan kichik yoki teng bo'lguncha, shart tekshiriladi va amallar bajariladi.

if operatori shartni tekshiradi. Agar count soni juft bo'lsa ( $\text{count} \% 2 === 0$ ), "juft son" degan xabarni console-da chiqaradi. Aks holda, "toq son" degan xabarni console-da chiqaradi.

Siklning oxirida count o'zgaruvchisi oshiriladi (count++) va siklning boshiga qaytariladi. Bunday qilib siklarda belgilangan amallar takrorlanadi va console-da quyidagi natija chiqadi:

```

1 toq son
2 juft son
3 toq son
4 juft son
5 toq son

```

Bu misol if operatorini va while siklini qo'llab-quvvatlaydi va sonlarni juft va toq sonligi bo'yicha ajratadi.

### **Xulosa**

JavaScriptda if operatori shartlarni tekshirish uchun, while sikli esa belgilangan shart bajarilganida amallarni takrorlash uchun ishlatiladi. Misol kodimiz while sikli orqali 1 dan 5 gacha sonlarni tekshirib, har bir sonning juft yoki toq sonligini aniqlaydi va natijani console-da chiqaradi. Bu misol kalit so'zlar va sikllarni yoritishda yordam beradi, shuning bilan bir qator kodni o'qish va tushuntirishni osonlashtiradi.

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