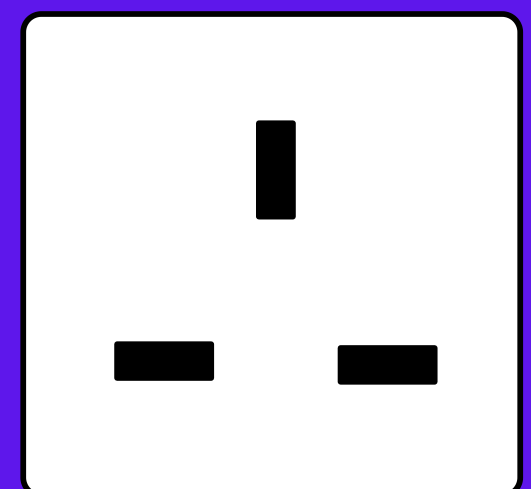
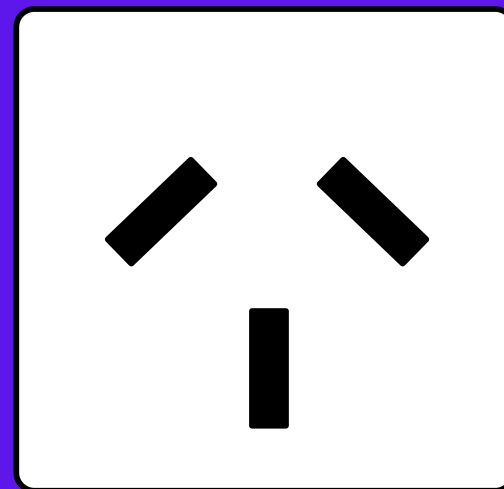
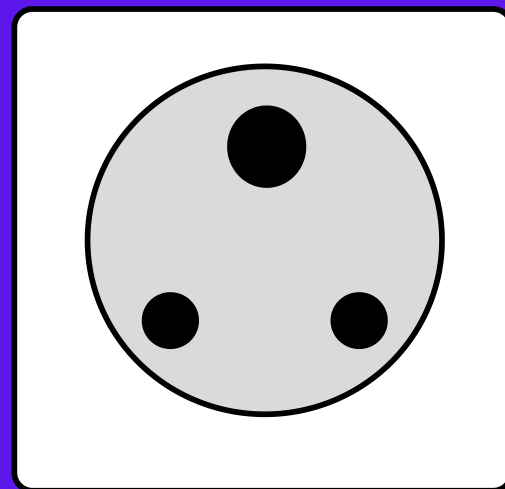
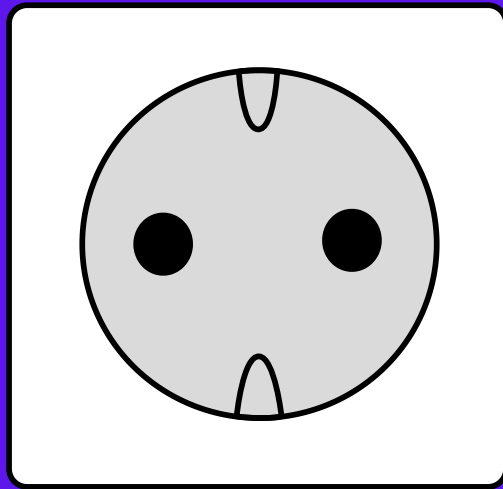


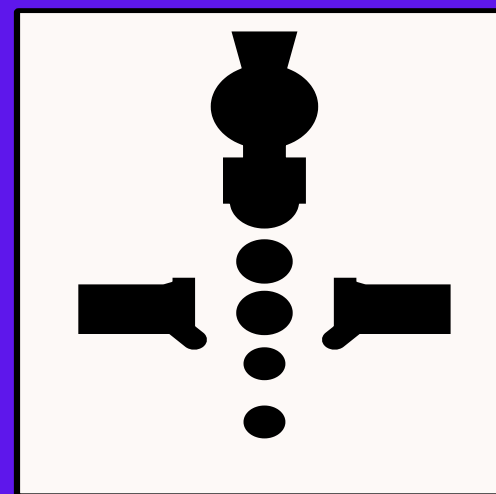
# What a polymorphism?

Polymorphism in programming refers to the ability of a particular object to behave differently depending on its actual type.

## Without Polymorphism



## With Polymorphism



## **Why a polymorphism?**

Polymorphism in programming allows objects to behave differently based on their actual type, aiming to enhance code reusability, flexibility, scalability, and simplicity.



**Shape**  
**Calcarea()**



**Triangle**  
**Calcarea()**



**Circle**  
**Calcarea()**



**Rectangle**  
**Calcarea()**

# What is type of polymorphism?

```
graph TD; A[What is type of polymorphism?] --> B[Run time (focus)]; A --> C[Compile time]; B --> D[Overriding]; C --> E[Overloading];
```

Run time (focus)

Overriding

Compile time

Overloading

# Overriding

```
virtual void Add(int a,int b){  
    content  
}
```

```
void Add(int a,int b) override{  
    content//  
}
```

# Overloading

```
void Add(int a,int b){  
    content  
}
```

```
void Add(float a,float b){  
    content  
}
```

**How access polymorphism?**