

CPP07

* Templates:

↳ can define template `float`, classes, struct, etc → code pattern

```
template < typename T >
```

$$T_{\text{const}} \max(T_{\text{tx}}, T_{\text{ty}}) \}$$

```
return (x >= y ? x : y);
```

'instancier

$$\max\langle \text{int} \rangle (a, b)$$

std::endl → Explicit



$\max(a, b) \dots \rightarrow \text{Implicit}$

- Implicit

• tpp

* Default Type:

Default type:
↳ allow to pass default values to type variables in template

↳ allow to pass default values
template < typename T = float > → if not specified type, use float (implied in param)
or empty <>

 \angle

complete \rightarrow $\langle \text{bool}, \text{bool} \rangle$

~~no specialis~~
~~compacte~~ $\rightarrow v \in \langle T, u \rangle$

partial \rightarrow $\langle T, \text{int} \rangle$

* Specialization:

↳ partial or complete specialization (new syntax) by leaving other type like int

- ↳ call a specific template if type matches instead of generic template