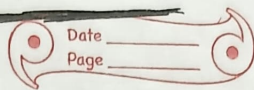


# MAPS & ITERATOR



`map<string, int> ppl = { { "John", 32 },  
{ "Adele", 34 }, { "Bo", 29 } };`

- at() fxn

`ppl.at("Adele")`  
`ppl["Adele"]` } same meaning

- insert

`ppl.insert({ "Jack", 22 })`

`ppl.insert({ "Anjali", 35 })`

→ Insert → Can't Update

But `mp["Jerry"]` → can update

• Erase

↳ ppl.erase("Key")

↓  
John

• Empty()

↳ ppl.empty()

★ • Count

↳ ppl.count("Key")

↳ check key exist  $\Rightarrow 1$   
or not  $\Rightarrow 0$



LOOP THROUGH MAP

①

for (auto person : ppl)

{

cout << pp person.first << "is"

<< person.second << "n";

}



```
→ for (auto it : car)
{
    cout << it.first << "Key";
    cout << it.second << "value";
}
```

- auto : automatically data type for each key-value pair → detect

## ② TYPE OF LOOP IN MAP

```
for (auto it = ppl.begin();
     it != ppl.end(); ++it)
```

```
{
    cout << it->first;    // Key
    cout << it->second;   // value
}
```