

## → ITERATORS SHORT

→ Iterating vector in short way

→ i makes a copy of elements of vector here, if we want to manipulate original vector inside this loop then we have to use references like this  $&i$

```
FOR (INT i : v)
{
```

```
    cout << i << " ";
```

```
}
```

```
VECTOR <PAIR <INT, INT>> v_p = { {1, 2}, {2, 3},
    {3, 4} };
```

→ Iterating vector of pairs in short way

```
FOR (PAIR <INT, INT> &i : v_p) // passing by
{                               reference here.
```

```
    cout << i.FIRST << " " << i.SECOND << " ";
```

}

→ AUTO keyword → It automatically determines what type of datatype we are using, this is often used in range based loops.

```
AUTO A = 10;
```

```
AUTO B = 10.70;
```

```
AUTO C = "HELLO BROI!";
```

→ Iterating vector of pairs using auto

```
FOR (AUTO &i : V-P)
```

```
{
```

```
    cout << i.FIRST << " " << i.SECOND << "\n";
```

```
}
```