

## Dictionary Comprehension

**Def:** Dictionary comprehension is a compact way to create dictionaries in Python using a single line of code.

### Syntax:

```
{key_expression: value_expression for item in iterable if condition}
```

Examples:

```
1.squares = {x: x**2 for x in range(1, 6)}
```

```
print(squares)
```

output:

```
{1: 1, 2: 4, 3: 9, 4: 16, 5: 25}
```

```
2. even_squares = {x: x**2 for x in range(1, 10) if x % 2 == 0}
```

```
print(even_squares)
```

output:

```
{2: 4, 4: 16, 6: 36, 8: 64}
```

```
3. names = ["Ram", "Kumar", "Prabha"]
```

```
scores = [85, 90, 88]
```

```
student_dict = {names[i]: scores[i] for i in range(len(names))}
```

```
print(student_dict)
```

output:

```
{'Ram': 85, 'Kumar': 90, 'Prabha': 88}
```

```
2. def allVowels(a):
```

```
    vowels = {ch + str(i): ch for key in a for i, ch in enumerate(a[key]) if ch in "aeiouAEIOU"}
```

```
    result = "".join(vowels.values())
```

```
    return result
```

```
a = {"name1": "vamsi", "name2": "ravi"}
```

```
result = allVowels(a)
```

```
print(result)
```

output: aiai