Slide # 35

```
scala> var x=5
x: Int = 5

scala> while (x >=1) {
     | println("Hello")
     | x-=1
     | }
Hello
Hello
Hello
Hello
Hello
```

Slide # 36

```
scala> 1. to (10)
res1: scala.collection.immutable.Range.Inclusive = Range(1, 2, 3, 4, 5, 6, 7,
8, 9, 10)

scala> 1 to 10
res2: scala.collection.immutable.Range.Inclusive = Range(1, 2, 3, 4, 5, 6, 7,
8, 9, 10)

scala> (1 to 10).reverse
res3: scala.collection.immutable.Range = Range(10, 9, 8, 7, 6, 5, 4, 3, 2, 1)
```

Slide # 37

```
scala> for (i<- 1 to 10) println(i)
1
2
3
4
5
6
7
8
9
10

scala> for (i<- (1 to 10).reverse) println(i)
10
9
8
7
6
5
4
3
2
1
```

```
scala> for (i<- 1 to 10 by 2) println(i)
1
3
5
7
9
```

Slide # 38

```
scala> 1 to 10
res7: scala.collection.immutable.Range.Inclusive = Range(1, 2, 3, 4, 5, 6, 7,
8, 9, 10)

scala> 1 until 10
res8: scala.collection.immutable.Range = Range(1, 2, 3, 4, 5, 6, 7, 8, 9)

scala> for (i <- 1 until 10) println(i)
1
2
3
4
5
6
7
8
9
```

Slide # 39

```
scala> var x = "Hello"
x: String = Hello

scala> for (ch <- 0 until x.length) println(x(ch))
H
e
l
l
o

scala> for (ch <- x) println(ch)
H
e
l
l
o
```

Slide # 41

```
scala> for (i <-1 to 5) {
     | for (j <-1 to 2) {
     |    println(i*j)
     |  }
     | }
1
2
2
4
3
6
4
8
5
10

scala> for (i <-1 to 5; j <-1 to 2) println(i*j)
1
2
2
4
3
6
4
8
5
10
```

Slide # 42

```
scala> for (i <- 1 to 5; j <-1 to 2; product = i * j) println(product)
1
2
2
4
3
6
4
8
5
10

scala> for (i <- 1 to 5; j <-1 to 2; product = i* j) println("Percentage: "+(p
roduct/2.5))
Percentage: 0.4
Percentage: 0.8
Percentage: 0.8
Percentage: 1.6
Percentage: 1.2
Percentage: 2.4
Percentage: 1.6
Percentage: 3.2
Percentage: 2.0
Percentage: 4.0

scala> for (i <- 1 to 5; j <-1 to 2; product = i * j) println(product/2.5)
0.4
0.8
0.8
1.6
1.2
2.4
1.6
3.2
2.0
4.0
```

Slide # 43

```
scala> for (i <- 1 to 5; j <-1 to 2; product = i*j) println(product)
1
2
2
4
3
6
4
8
5
10

scala> for (i <- 1 to 5; j <-1 to 2; product = i*j if (product >=8)) println(p
roduct)
8
10
```

Slide # 45

```
scala> for (i <- 1 to 5; j <-1 to 2; product = i*j if (product >=8)) println(p
roduct)
8
10

scala> for (i <- 1 to 5; j <-1 to 2; product = i*j ) yield product
res19: scala.collection.immutable.IndexedSeq[Int] = Vector(1, 2, 2, 4, 3, 6, 4
, 8, 5, 10)

scala> for (i <- 1 to 5; j <-1 to 2; product = i*j ) println(product)
1
2
2
4
3
6
4
8
5
10

scala> for (i <- 1 to 5; j <-1 to 2; product = i*j ) println(product/2.5)
0.4
0.8
0.8
1.6
1.2
2.4
1.6
3.2
2.0
4.0
```

Slide # 46

```
scala> for (ch <- "Hello") print(ch+0)
72101108108111
scala> for (ch <- "Hello") println(ch+0)
72
101
108
108
111

scala> for (ch <- "Hello";i <- 1 to 5) println(ch+i)
73
74
75
76
77
102
103
104
105
106
109
110
111
112
113
109
110
111
112
113
112
113
114
115
116
```

Slide # 47

```
scala> for (i <- 1 to 5; ch <- "Hello") yield i+ch
res25: scala.collection.immutable.IndexedSeq[Int] = Vector(73, 102, 109, 109,
112, 74, 103, 110, 110, 113, 75, 104, 111, 111, 114, 76, 105, 112, 112, 115, 7
7, 106, 113, 113, 116)
```