21BDS0340

Abhinav Dinesh Srivatsa

Exploratory Data Analysis Lab

<div align="center">Experiment – I</div>

Code:
```r
# branching with if
x = 5
if (x == 5) {
  print("x is greater than 5")
}
```

Output:
```
[1] "x is greater than 5"
```

Code:
```r
# branching with if... else
x = 2
if (x > 3) {
  print("x is greater than 3")
} else {
  print("x is less than or equal to 3")
}
```

Output:
```
[1] "x is less than or equal to 3"
```

Code:
```r
# branching with if... else if... else
x = 3
if (x > 3) {
  print("x is greater than 3")
} else if (x < 3) {
  print("x is less than 3")
} else {
  print("x is equal to 3")
}
```

Output:
```
[1] "x is equal to 3"
```

Code:
```r
# looping with range
for (i in 1:5) {
  print(i)
}
```

Output:
```
[1] 1
[1] 2
[1] 3
[1] 4
[1] 5
```

Code:
```r
# looping through elements
names = c("abhinav", "tanush", "dinesh", "sumathi")
for (name in names) {
  print(name)
}
```

Output:
```
[1] "abhinav"
[1] "tanush"
[1] "dinesh"
[1] "sumathi"
```

Code:
```r
# while loop
x = 0
while (x < 5) {
  print(x)
  x = x + 1
}
```

Output:
```
[1] 0
[1] 1
[1] 2
[1] 3
[1] 4
```

Code:
```r
# repeat loop
x = 1
repeat {
  print(x)
  if (x >= 5) {
    break
  }
  x = x + 1
}
```

Output:
```
[1] 1
[1] 2
[1] 3
```

```
[1] 4
[1] 5
```

Code:
```r
# branching and looping combo
for (x in 0:10) {
  if (x %% 2 == 0) {
    print(paste(x, "is even"))
  } else {
    print(paste(x, "is odd"))
  }
}
```

Output:
```
[1] "0 is even"
[1] "1 is odd"
[1] "2 is even"
[1] "3 is odd"
[1] "4 is even"
[1] "5 is odd"
[1] "6 is even"
[1] "7 is odd"
[1] "8 is even"
[1] "9 is odd"
[1] "10 is even"
```