ITDS Prac 8

First screenshot — Source editor:

```r
#Create Student Dataset
student_data <- data.frame(
  ID = 1:25,
  Name = c("Aman", "Riya", "Sahil", "Priya", "Karan",
           "Meena", "Vikas", "Neha", "Rohit", "Pooja",
           "Arjun", "Simran", "Deepak", "Anjali", "Kabir",
           "Sonam", "Nikhil", "Kavita", "Manoj","Sneha",
           "Varun", "Tanya", "Raj", "Divya", "Mohit"),

  Age = c(20, 19, 21, 20, 22,
          19, 21, 20, 22, 19,
          21, 20, 23, 22, 20,
          21, 19, 22, 20, 21,
          23, 22, 20, 19, 21),

  Gender = c("Male", "Female", "Male", "Female", "Male",
             "Female", "Male", "Female", "Male", "Female",
             "Male", "Female", "Male", "Female", "Male",
             "Female", "Male", "Female", "Male","Female",
             "Male", "Female", "Male", "Female", "Male"),
```

First screenshot — Console:

```
> print(student_data)
   ID   Name Age Gender Department Marks
1   1   Aman  20   Male         CS    85
2   2   Riya  19 Female         IT    90
3   3  Sahil  21   Male        ECE    78
4   4  Priya  20 Female         CS    88
5   5  Karan  22   Male         IT    92
6   6  Meena  19 Female        ECE    80
7   7  Vikas  21   Male         CS    75
8   8   Neha  20 Female         IT    95
9   9  Rohit  22   Male        ECE    70
10 10  Pooja  19 Female         CS    89
```

Second screenshot — Source editor:

```r
             "Male", "Female", "Male", "Female", "Male"),

  Department = c("CS", "IT", "ECE", "CS", "IT",
                 "ECE", "CS", "IT", "ECE", "CS",
                 "IT", "ECE", "CS", "IT", "ECE",
                 "CS", "IT", "ECE", "CS","IT",
                 "ECE", "CS", "IT", "ECE", "CS"),

  Marks = c(85, 90, 78, 88, 92,
            80, 75, 95, 70, 89,
            84, 91, 73, 87, 76,
            94, 82, 77, 85, 90,
            72, 88, 93, 79, 81)
)

#Print dataset
print(student_data)
```

Second screenshot — Console:

```
13 13 Deepak  23   Male         CS    73
14 14 Anjali  22 Female         IT    87
15 15  Kabir  20   Male        ECE    76
16 16  Sonam  21 Female         CS    94
17 17 Nikhil  19   Male         IT    82
18 18 Kavita  22 Female        ECE    77
19 19  Manoj  20   Male         CS    85
20 20  Sneha  21 Female         IT    90
21 21  Varun  23   Male        ECE    72
22 22  Tanya  22 Female         CS    88
23 23    Raj  20   Male         IT    93
24 24  Divya  19 Female        ECE    79
```

ITDS Prac 8

First screenshot code:

```r
#Load library
library (ggplot2)

#scatter plot with dark theme
ggplot(student_data, aes(x = Age, y = Marks, color = Gender)) +

  geom_point(size = 3) +

  facet_wrap(~Department) +

  labs(

  title = "Student Marks vs Age (Faceted by Department)",
   x = "Age of Student",
   y = "Marks Scored",
   color = "Gender"

  ) +

  theme_dark()
```


Second screenshot code:

```r
library(ggplot2)

#Scatter plot with facets
ggplot(data = iris, aes(x = Sepal.Length, y = Sepal.Width, color = Species))+

  geom_point(size = 3) +

  facet_wrap(~ Species) +

  labs(
    title = "Sepal Length vs Sepal Width (Faceted by Species)",
    x = "Sepal Length",
    y = "Sepal Width",
    color = "Flower Species"

  )


  theme_minimal()
```