SHETH L.U.J. AND SIR M.V. COLLEGE OF ARTS SCIENCE AND COMMERCE

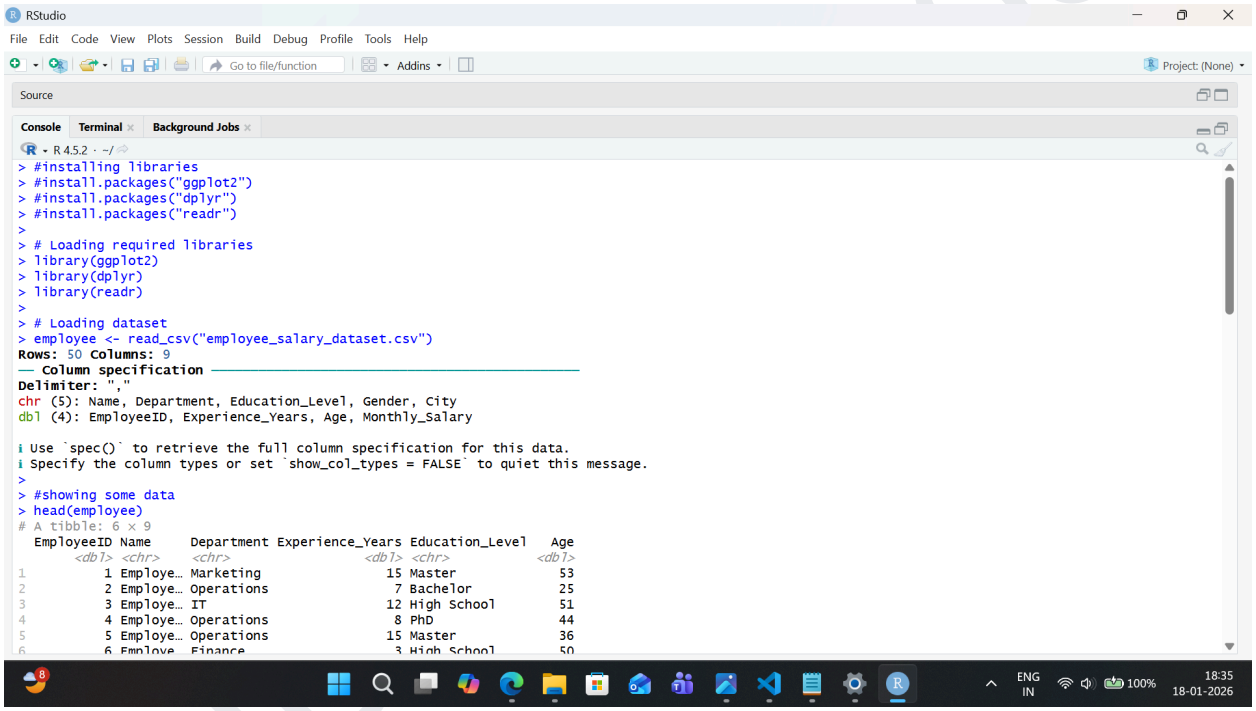
SUBJECT : R Programming

Practical No 10 Module II

Aim : Creating graphical reports using ,ggplot2 (R).

- Scatter plot
- Pie chart
- High-Low chart

Output :

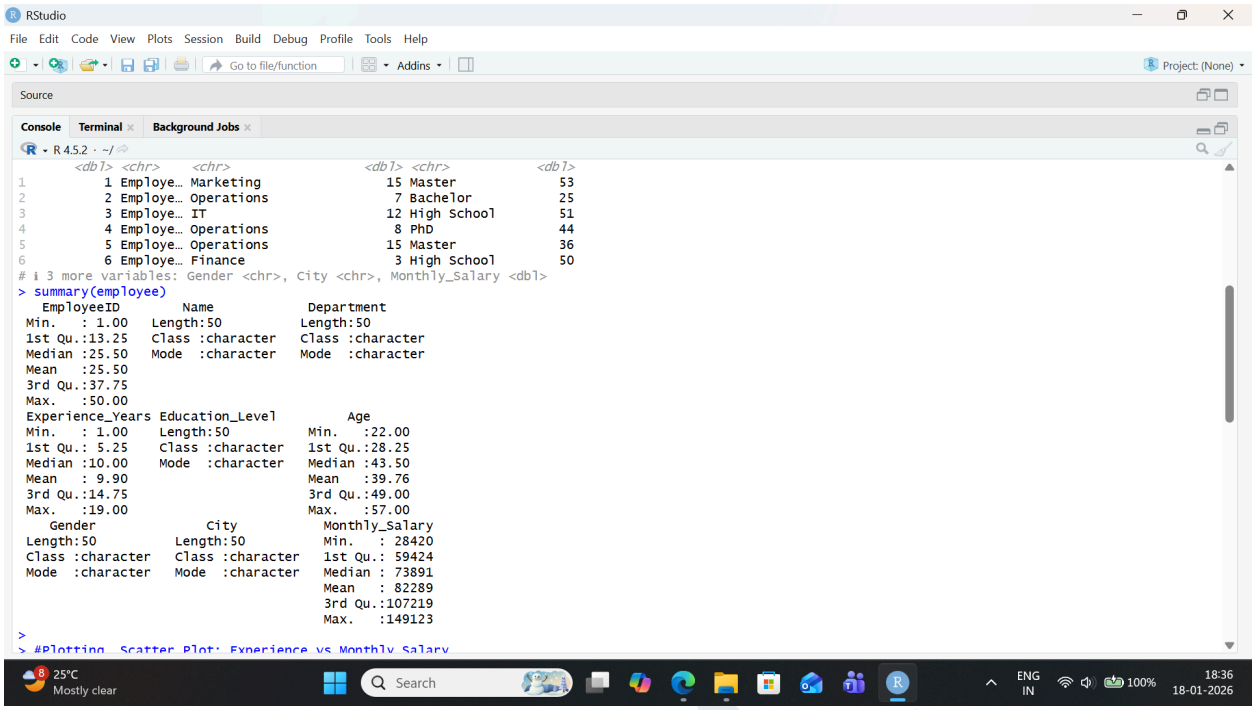


NAME : SHUBHAM SANJAY KARAPE

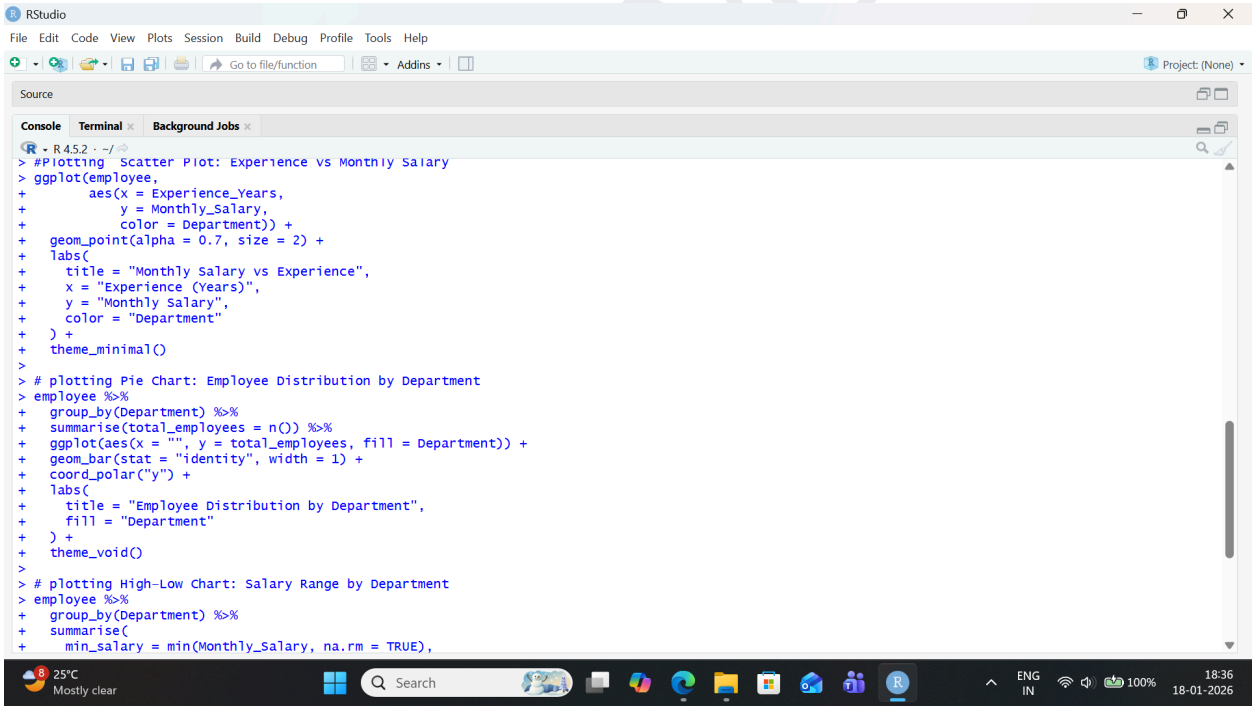
ROLL NO : S085

SHETH L.U.J. AND SIR M.V. COLLEGE OF ARTS SCIENCE AND COMMERCE

SUBJECT : R Programming



```
      <dbl> <chr>    <chr>                 <dbl> <chr>           <dbl>
1         1 Employe… Marketing                15 Master             53
2         2 Employe… Operations                7 Bachelor           25
3         3 Employe… IT                       12 High School        51
4         4 Employe… Operations                8 PhD                44
5         5 Employe… Operations               15 Master             36
6         6 Employe… Finance                   3 High School        50
# ℹ 3 more variables: Gender <chr>, City <chr>, Monthly_Salary <dbl>
> summary(employee)
   EmployeeID        Name            Department
 Min.   : 1.00   Length:50          Length:50
 1st Qu.:13.25   Class :character   Class :character
 Median :25.50   Mode  :character   Mode  :character
 Mean   :25.50
 3rd Qu.:37.75
 Max.   :50.00
 Experience_Years Education_Level         Age
 Min.   : 1.00    Length:50          Min.   :22.00
 1st Qu.: 5.25    Class :character   1st Qu.:28.25
 Median :10.00    Mode  :character   Median :43.50
 Mean   : 9.90                       Mean   :39.76
 3rd Qu.:14.75                       3rd Qu.:49.00
 Max.   :19.00                       Max.   :57.00
    Gender              City          Monthly_Salary
 Length:50          Length:50          Min.   : 28420
 Class :character   Class :character   1st Qu.: 59424
 Mode  :character   Mode  :character   Median : 73891
                                       Mean   : 82289
                                       3rd Qu.:107219
                                       Max.   :149123
>
> #Plotting  Scatter Plot: Experience vs Monthly Salary
```



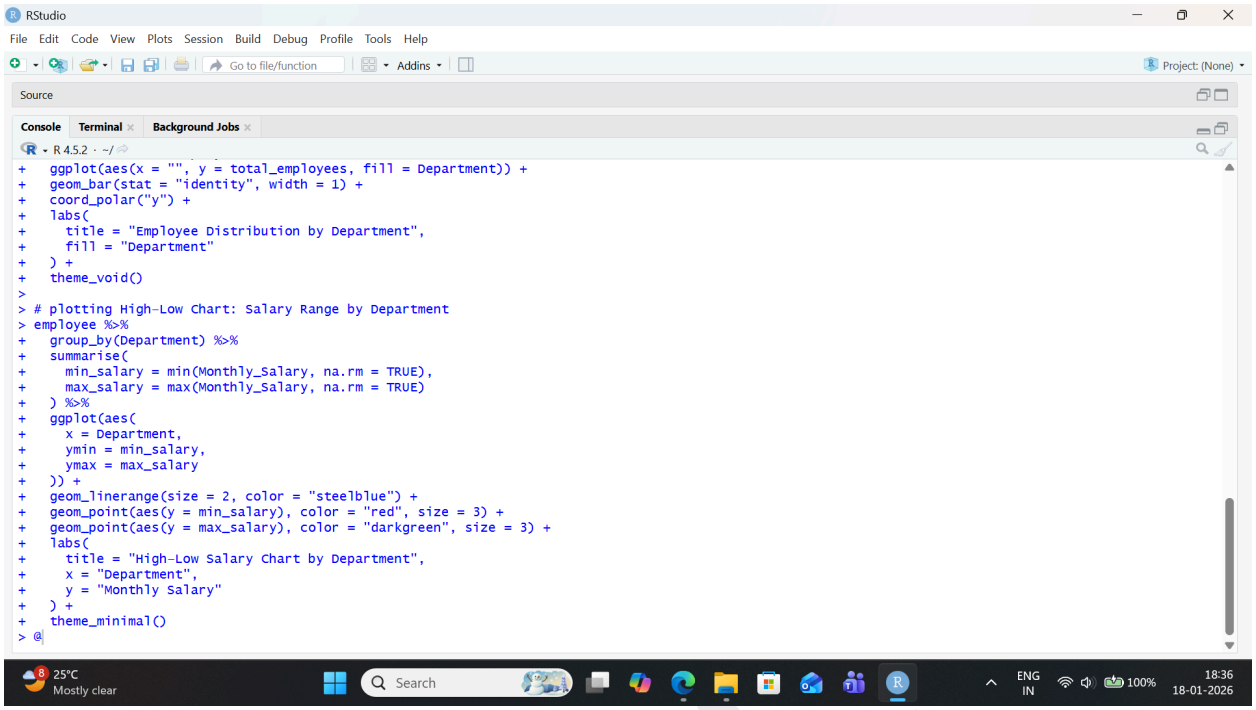
```
> #Plotting  Scatter Plot: Experience vs Monthly Salary
> ggplot(employee,
+        aes(x = Experience_Years,
+            y = Monthly_Salary,
+            color = Department)) +
+   geom_point(alpha = 0.7, size = 2) +
+   labs(
+     title = "Monthly Salary vs Experience",
+     x = "Experience (Years)",
+     y = "Monthly Salary",
+     color = "Department"
+   ) +
+   theme_minimal()
>
> # plotting Pie Chart: Employee Distribution by Department
> employee %>%
+   group_by(Department) %>%
+   summarise(total_employees = n()) %>%
+   ggplot(aes(x = "", y = total_employees, fill = Department)) +
+   geom_bar(stat = "identity", width = 1) +
+   coord_polar("y") +
+   labs(
+     title = "Employee Distribution by Department",
+     fill = "Department"
+   ) +
+   theme_void()
>
> # plotting High-Low Chart: Salary Range by Department
> employee %>%
+   group_by(Department) %>%
+   summarise(
+     min_salary = min(Monthly_Salary, na.rm = TRUE),
```

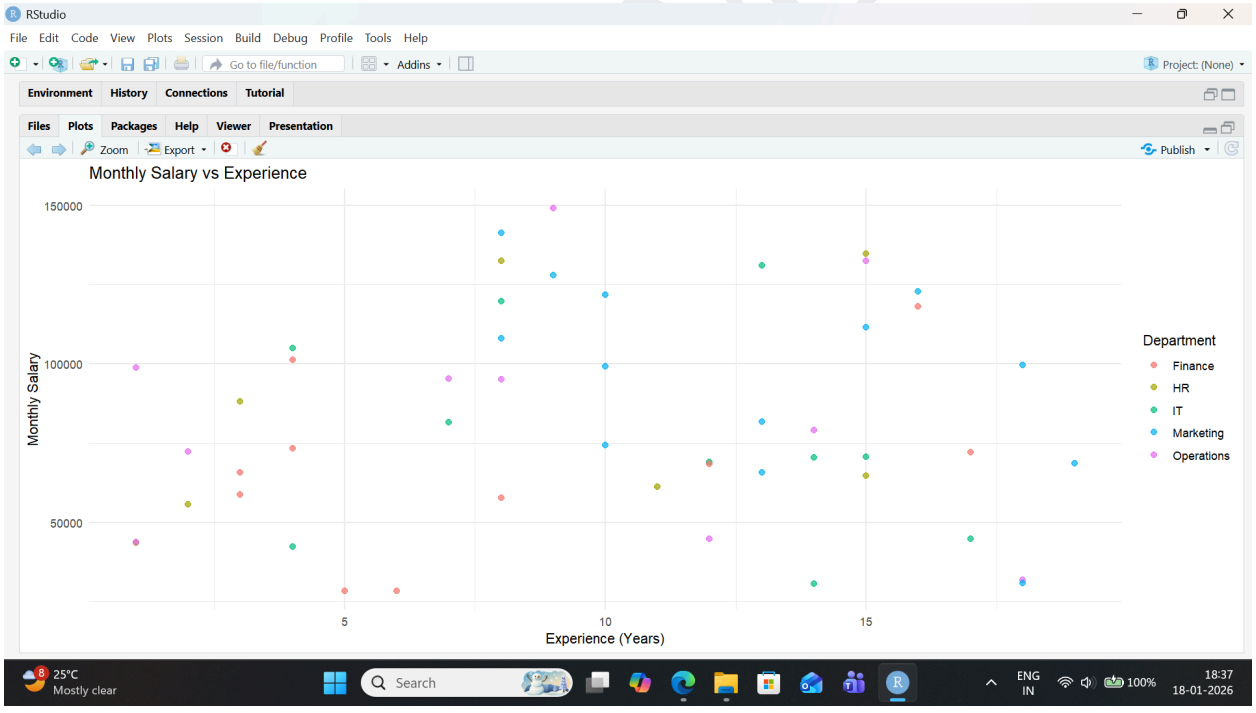
NAME : SHUBHAM SANJAY KARAPE

ROLL NO : S085

SHETH L.U.J. AND SIR M.V. COLLEGE OF ARTS SCIENCE AND COMMERCE

SUBJECT : R Programming



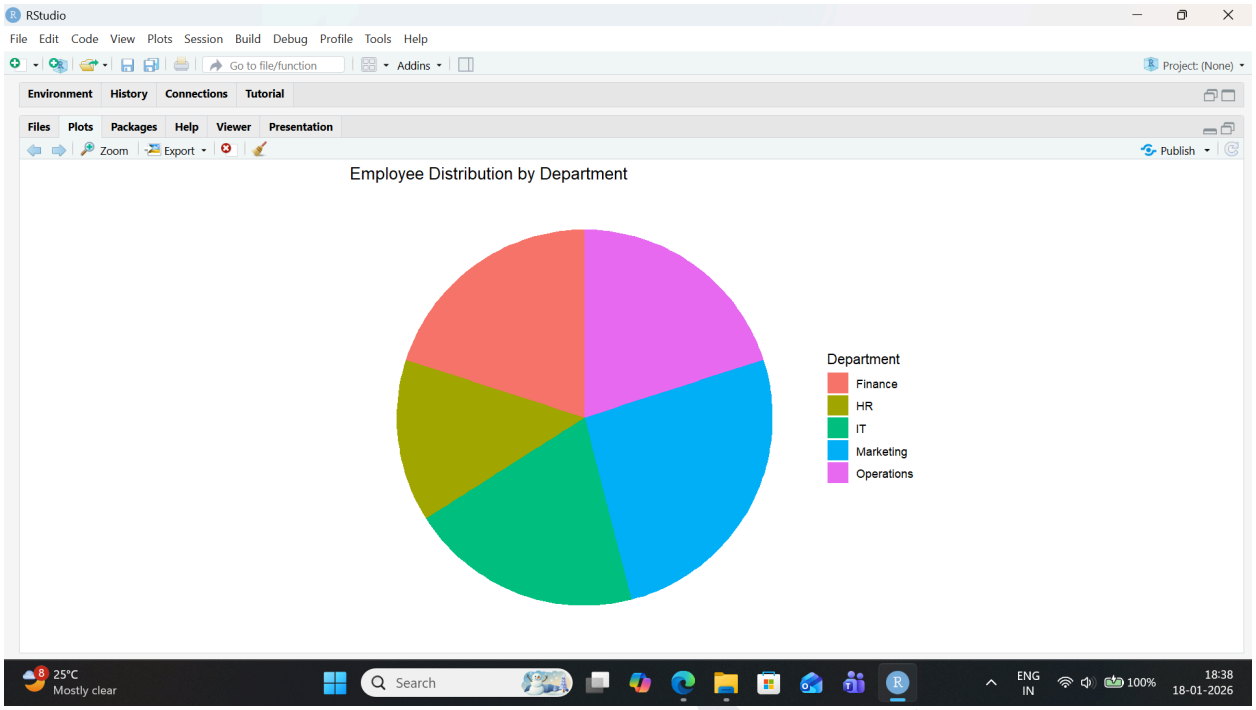


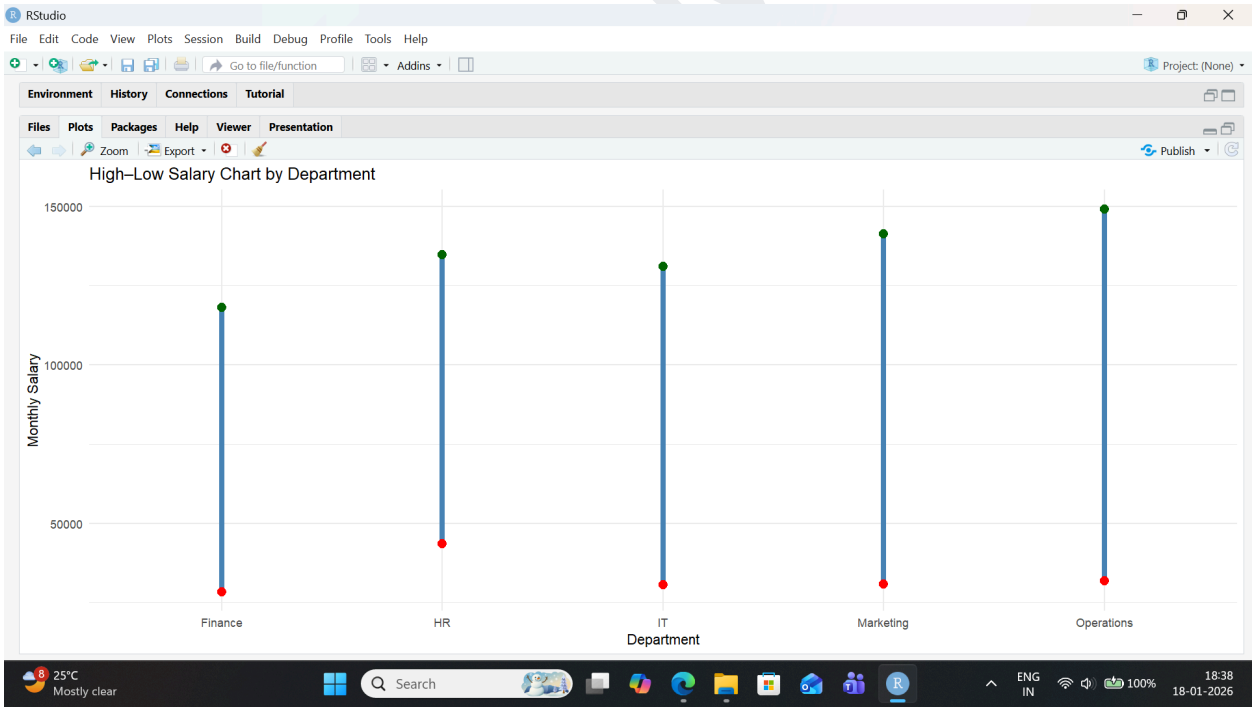
NAME : SHUBHAM SANJAY KARAPE

ROLL NO : S085

SHETH L.U.J. AND SIR M.V. COLLEGE OF ARTS SCIENCE AND COMMERCE

SUBJECT : R Programming





NAME : SHUBHAM SANJAY KARAPE

ROLL NO : S085