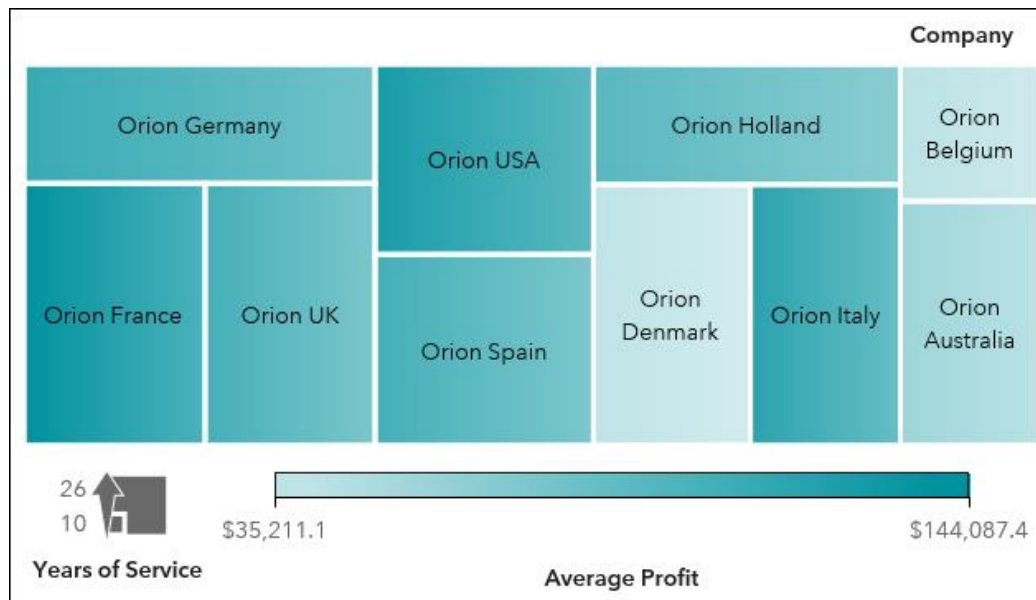


6. Analyzing Data

- a. From the browser window, sign in to SAS Viya for Learners.
- b. Open the **VA1- Exercise3.4a** report from the **SAS Content/Courses/YVA183/Basics/Exercises (HR)** folder.
 - 1) Navigate to **SAS Content/Courses/YVA183/Basics/Exercises (HR)**.
 - 2) Right-click **VA1- Exercise3.4a** and select **Edit**.
- c. On Page 5, create a treemap.
 - 1) In the upper left corner of the report, click the **Page 5** tab.
 - 2) In the left pane, click the **Objects** icon.
 - 3) Drag the **Treemap** object, from the Graphs group, to the canvas.
 - 4) In the right pane, click the **Roles** icon.
 - 5) For the Tile role, select **Add** ⇒ **Company**.
 - 6) For the Size role, select **Number of Employees** ⇒ **Years of Service**.
 - 7) For the Color role, select **Add** ⇒ **Average Profit**.
 - 8) For the Data tip values role, select **Add** ⇒ **Number of Employees** and click **OK**.

The treemap should resemble the following:



d. Create a new hierarchy (**Employee Hierarchy**).

- 1) In the left pane, click the **Data** icon.
- 2) In the Data pane, select **New data item** ⇒ **Hierarchy**.
 - a) In the New Hierarchy window, enter **Employee Hierarchy** in the **Name** field.
 - b) Double-click the following data items, in the specified order, in the Available items list to move them to the Selected items list:

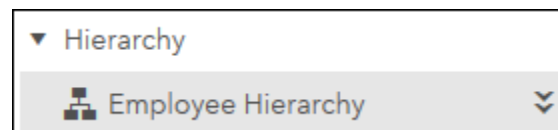
Company

Job Title

Employee Gender

- c) Click **OK** to create the hierarchy.

The Hierarchy group in the Data pane should resemble the following:





e. Modify the Tile role in the treemap and answer the questions.

- 1) If necessary, select the treemap.
- 2) In the right pane, click the **Roles** icon.
- 3) For the Tile role, select **Company** ⇒ **Employee Hierarchy**.
- 4) Answer the questions.

Which two companies have the highest average profit generated (one possible criterion for promotion)?

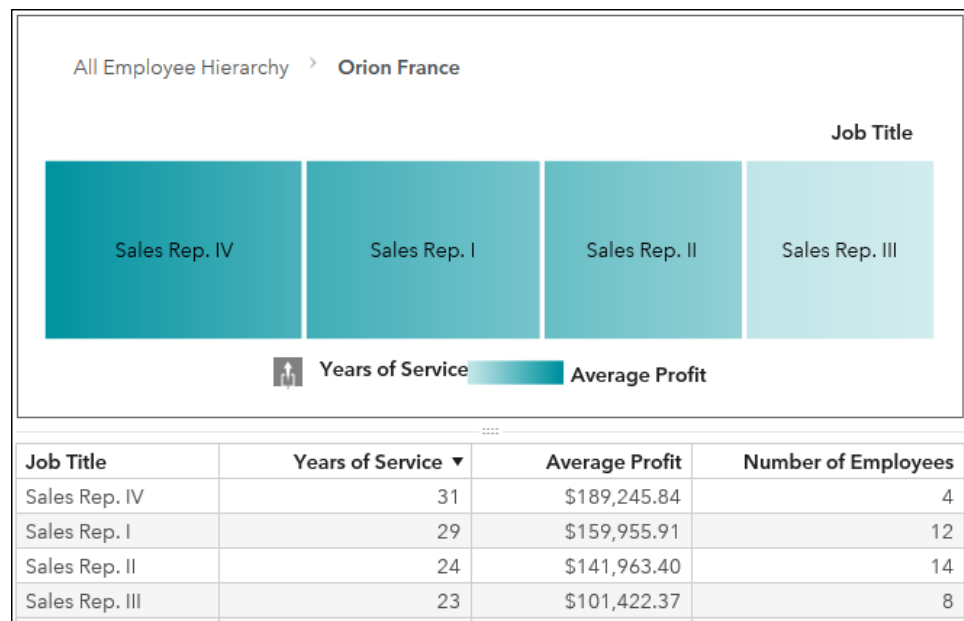
Answer: Orion France and Orion USA have the highest average profit generated.



Company	Years of Service	Average Profit ▼
Orion France	26	\$144,087.39
Orion USA	23	\$130,011.94

- In the upper right corner of the treemap, click  (Maximize) to view additional details.
- In the table below the treemap, click Average Profit twice to sort in descending order.
- In the upper right corner, click  (Restore).

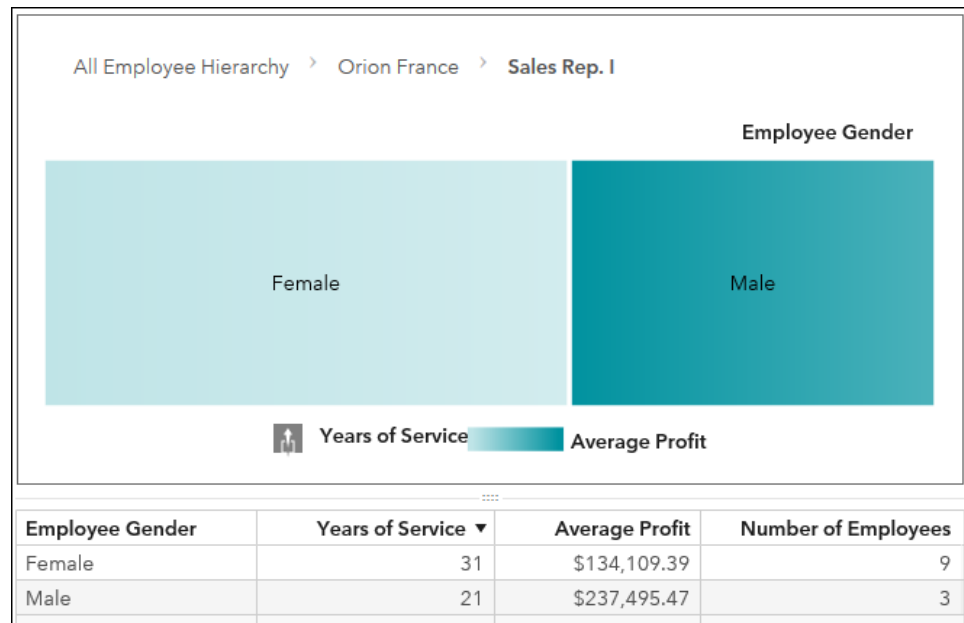
For these two companies, which job titles would you recommend for promotion (based on average years of service and average profit generated)?



Answer: For Orion France, although Sales Rep IV have the highest years of service and highest average profit, there is no promotion level for them. Sales Rep. I employees have the next highest average years of service and the highest profit per employee.



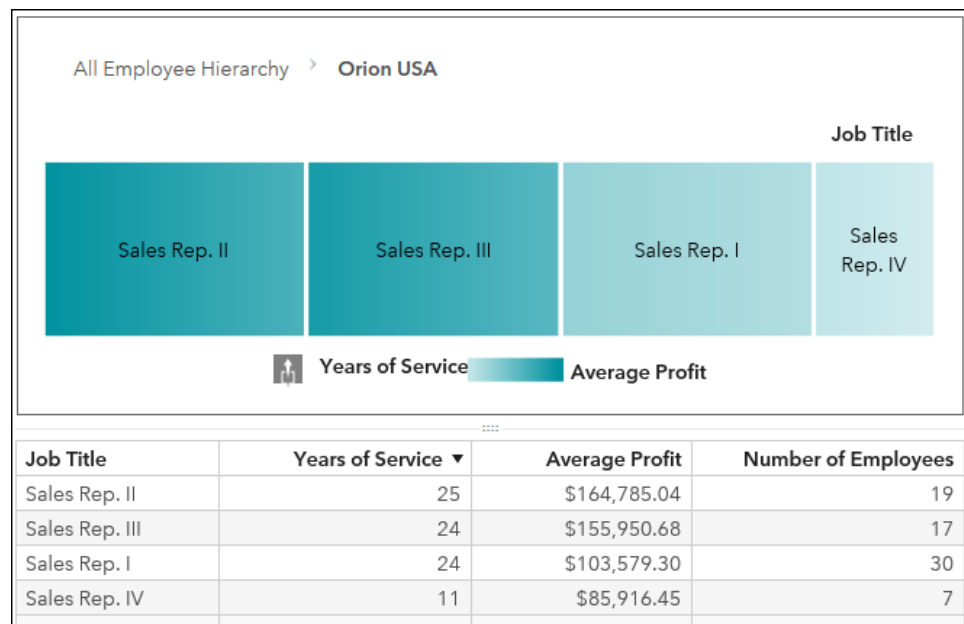
- In the treemap, double-click Orion France.
- In the upper right corner of the treemap, click  (Maximize) to view additional details.
- In the table below the treemap, click Years of Service twice to sort in descending order.
- In the upper right corner, click  (Restore).



For Sales Rep. I, males have higher profit per employee but fewer years of service and fewer employees.



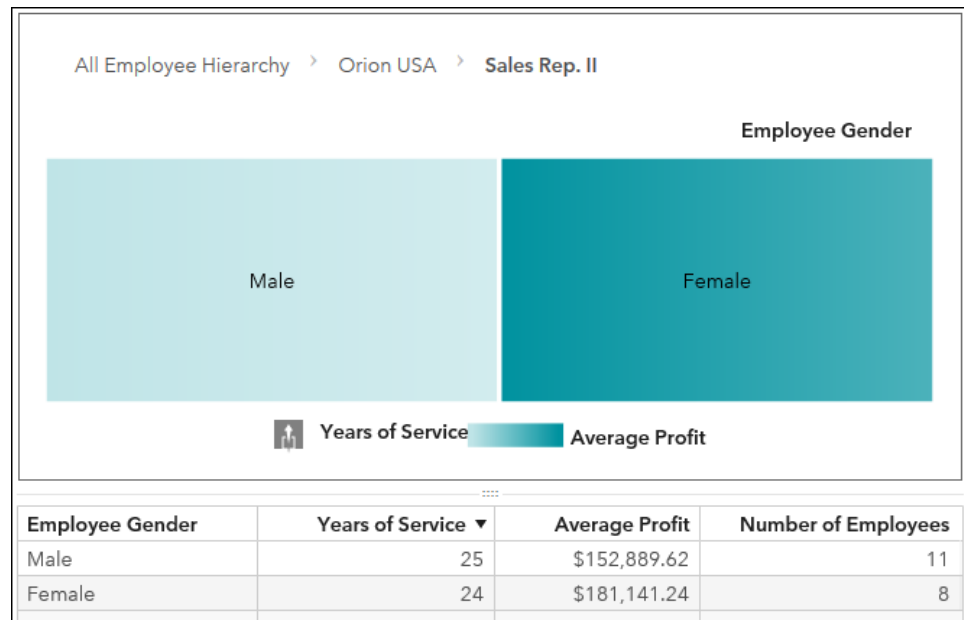
- In the treemap, double-click Sales Rep. I.
- In the upper right corner of the treemap, click  (Maximize) to view additional details.
- In the table below the treemap, click Years of Service twice to sort in descending order.
- In the upper right corner, click  (Restore).



For Orion USA, Sales Rep. II employees have the highest years of service and the highest average profit per employee.




- In the treemap, click **All Employee Hierarchy** to return to the top level of the hierarchy.
- Double-click **Orion USA**.
- In the upper right corner of the treemap, click  (Maximize) to view additional details.
- In the table below the treemap, click **Years of Service** twice to sort in descending order.
- In the upper right corner, click  (Restore).

For Sales Rep. II, females have higher profit per employee but fewer years of service and fewer employees.



- In the treemap, double-click **Sales Rep. II**.
- In the upper right corner of the treemap, click  (Maximize) to view additional details.
- In the table below the treemap, click **Years of Service** twice to sort in descending order.
- In the upper right corner, click  (Restore).

f. Save the report in **My Folder**.

- 1) To save the report, click  (**Menu**) in the upper right corner and select **Save As**.
- 2) Navigate to **My Folder**.
- 3) Click **Save**.