

The screenshot shows a Jupyter Notebook environment. On the left, there's a sidebar with 'Task 5: Instructions' and a list of steps. The main area displays a histogram of app ratings. The histogram has a title '5. Distribution of app ratings' and a subtitle explaining that app ratings are a key performance indicator. The plot shows a distribution of ratings with a vertical dashed line at the average rating of 4.17. The x-axis is labeled 'Rating' and the y-axis is labeled 'Frequency'.

Google Play Store Analysis - Task 5

Task 5 Instructions

1. Calculate the average app rating and assign it to `avg_app_rating`.
2. Create a histogram that shows the distribution of app ratings.
3. Add a vertical dashed line to indicate the average app rating.
4. Use the `Plotly` library for visualization.

Correct Code Implementation

```
import plotly.graph_objs as go
import plotly.offline as pyo
```

```
# Step 1: Calculate the average app rating
avg_app_rating = apps['Rating'].mean()
print("Average app rating =", avg_app_rating)
```

```
# Step 2: Create a histogram for app ratings
data = [go.Histogram(x=apps['Rating'])]
```

```
# Step 3: Add a vertical dashed line for the average app rating
layout = {
    'shapes': [
        {
```

```

        'type': 'line',
        'x0': avg_app_rating,
        'x1': avg_app_rating,
        'y0': 0,
        'y1': 1000, # Adjusted as per the data
        'line': {'dash': 'dashdot'}
    }
]
}

```

Step 4: Combine the data and layout, and plot the figure
`pyo.iplot({'data': data, 'layout': layout})`

Explanation of the Code

1. ****Calculate Average Rating****:

- The ``mean()`` method computes the average value of the ``Rating`` column.
- This value is stored in the ``avg_app_rating`` variable for further use.

2. ****Histogram****:

- A histogram is created using the ``go.Histogram()`` function, which plots the distribution of app ratings.

3. ****Vertical Dashed Line****:

- The ``layout`` dictionary specifies the dashed line at the ``avg_app_rating`` value.
- ``shapes`` is used to define a line from ``y0=0`` to ``y1=1000`` with the average rating value as ``x0`` and ``x1``.

4. ****Plot the Visualization****:

- The ``pyo.iplot()`` function is used to render the plot with the specified data and layout.