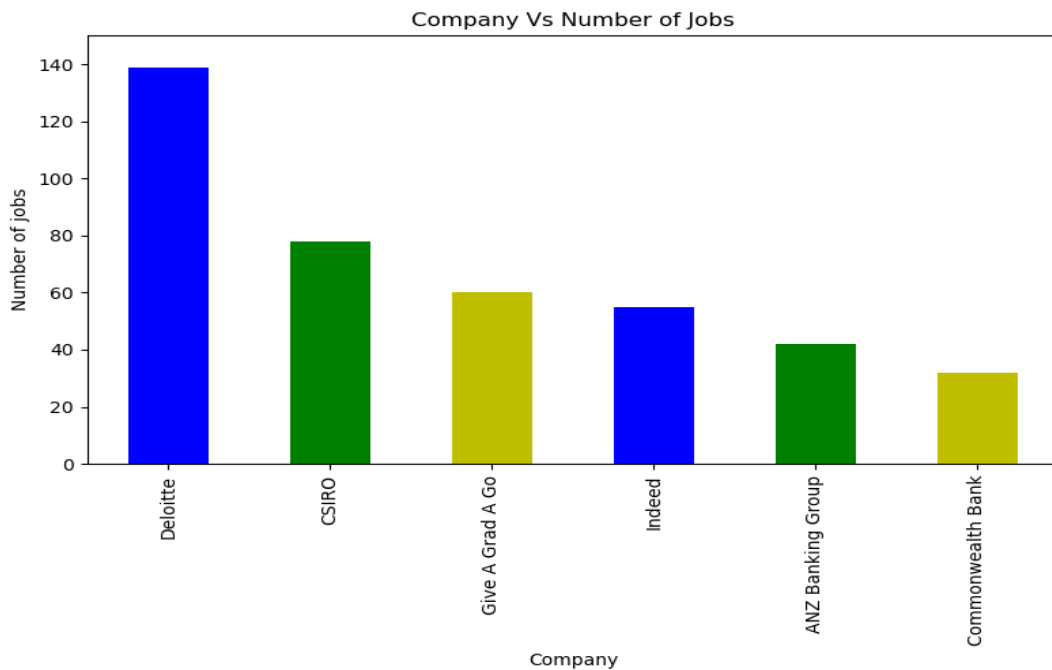


Summary:

Findings by Anam Khalid:

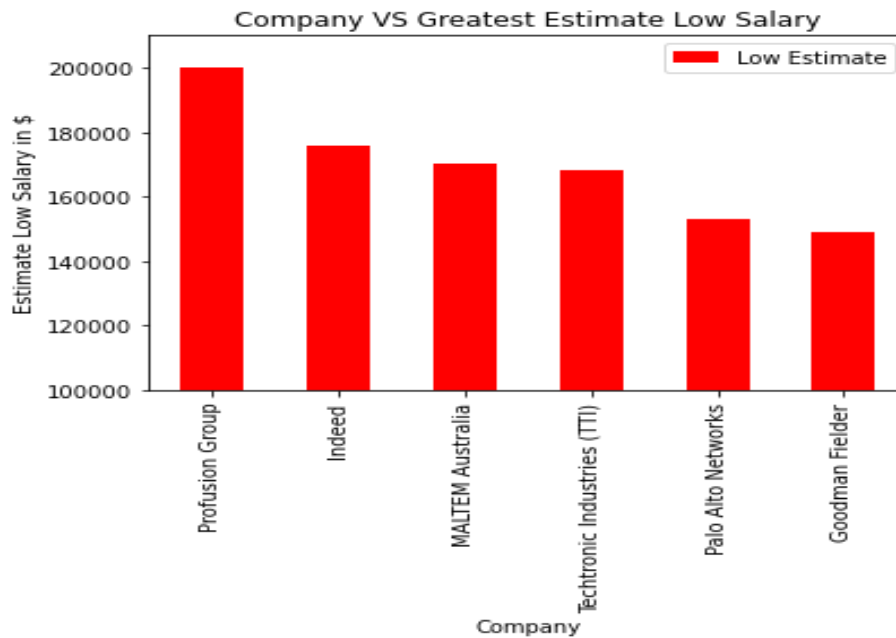
- **Top Companies in Terms of Jobs**

Deloitte, CSIRO, Give A Grad A Go, Indeed, ANZ Banking Group and Commonwealth Bank are the top 6 companies with the maximum number of jobs.



- **Companies With the Greatest Average of Estimate Low Salary**

In general, we can get an idea that Profusion Group, Indeed, MALTEM Australia, Techtronic Industries (TTI), Palo Alto Networks and Goodman Fielder are the top six companies paying the highest estimated low salary.



- **Companies With the Greatest Average of Base Salary**

Indeed, Profusion Group, Techtronic Industries (TTI), MALTEM Australia, Palo Alto Networks and Microsoft are the top six companies paying the highest estimated base salary.



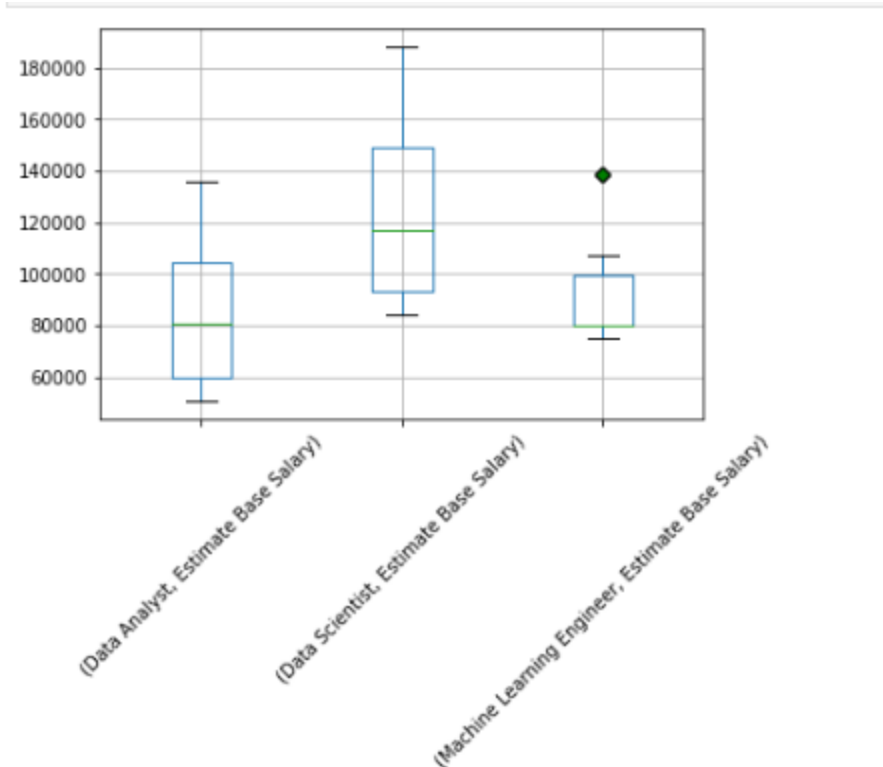
- **Companies With the Greatest Average of High Salary**

Indeed, Profusion Group, United Nations, Techtronic Industries (TTI), Palo Alto Networks and Neamap are the top six companies paying the highest estimated high salary.



- **Top 3 Unique Job Titles and Their Salary Comparison**

Data Scientists, Data Analysts and Machine Learning Engineers are the job titles with maximum number of opportunities in Data Science. Among these three, from the following boxplot we can have an idea that Data Scientists are being paid the highest, then Data Analysts and Machine Learning Engineers. In the case of Machine Learning Engineers Q1 and Q2 are same that means starting salaries are really good.



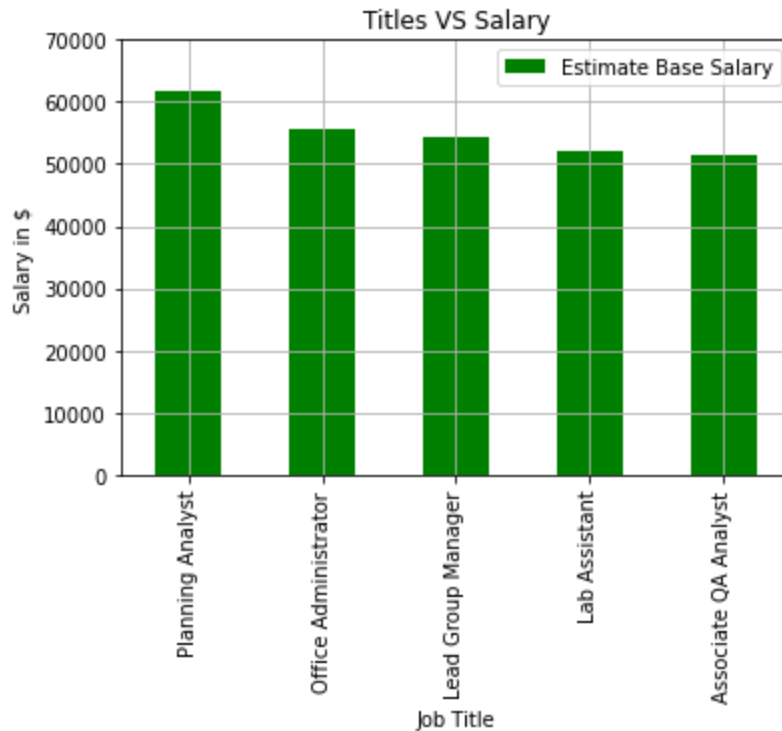
- **Top 5 Job Titles in Terms of Salary**

The following plot displays the top 5 job titles being paid highest when it comes to estimated base salary. We can see people are getting paid between \$1,50,000 and \$3,00,000 which is really good.



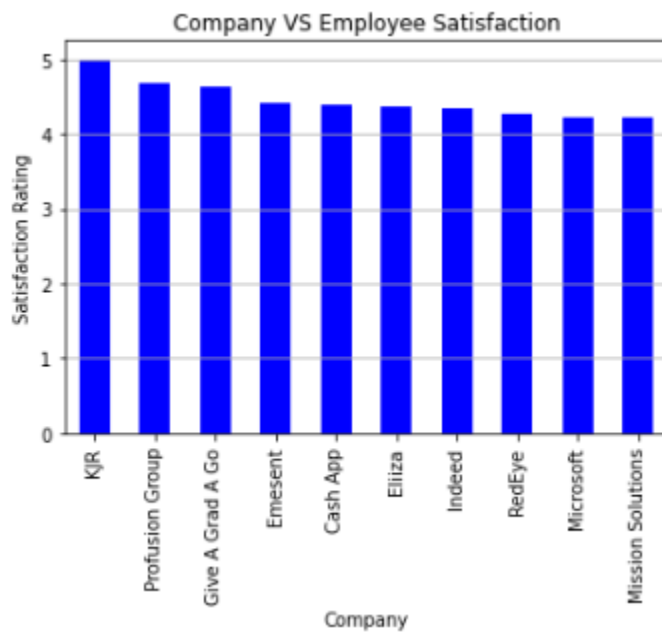
- **Bottom 5 Job Titles in Terms of Salary**

The following plot displays the bottom 5 job titles being paid highest when it comes to estimated base salary. We can see people are getting paid between \$50,000 and \$65,000 which is not as good as some other titles are earning in the field.



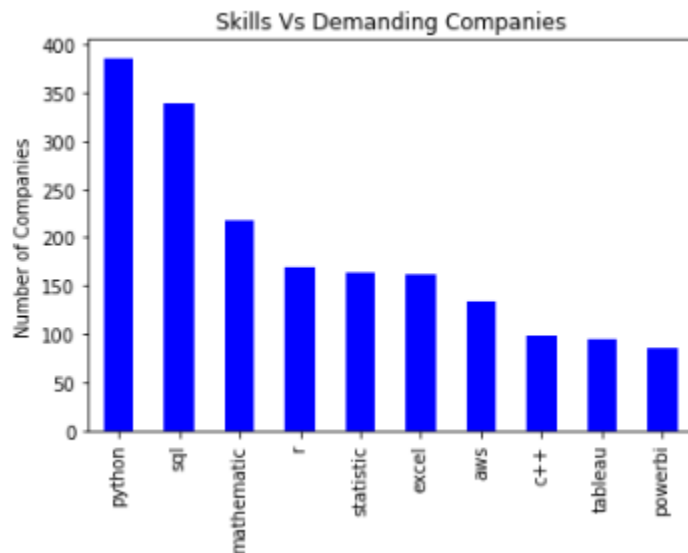
- **Top Ten Companies in Terms of Employee Satisfaction**

The following bar plot displays the top ten companies with the happiest employees. It's an average of 4 factors being provided in the original data.



- **Top 10 in Demand Skills by the Companies**

Following bar plot displays the top ten skills demanded by most of the companies where python and sql are the clear winners.



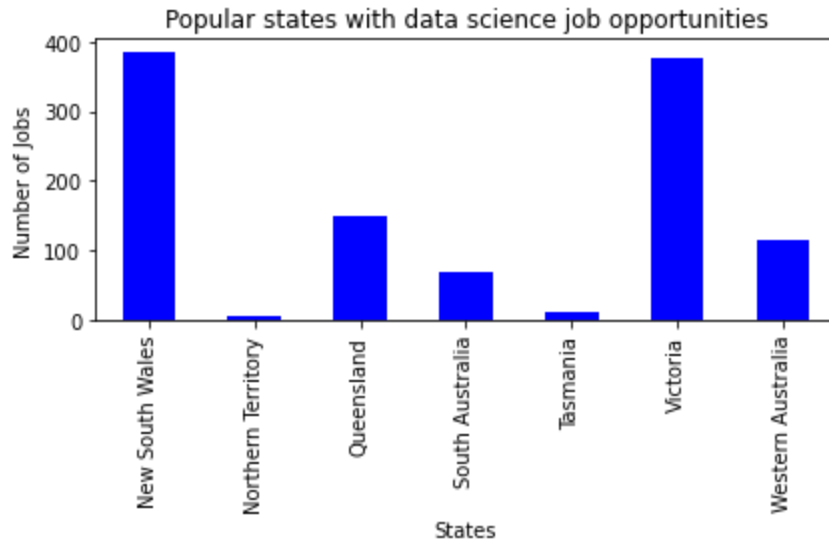
Conclusion:

We can analyze that people are getting paid differently in the same field. The potential reasons are the skills possessed by the individual job titles.

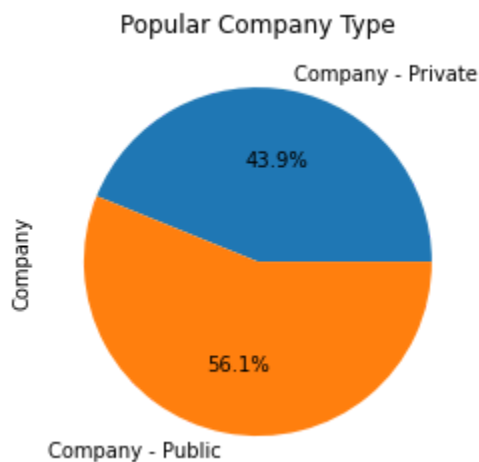
Findings by Nishant Patel:

- **Data science job opportunities in different states of Australia**

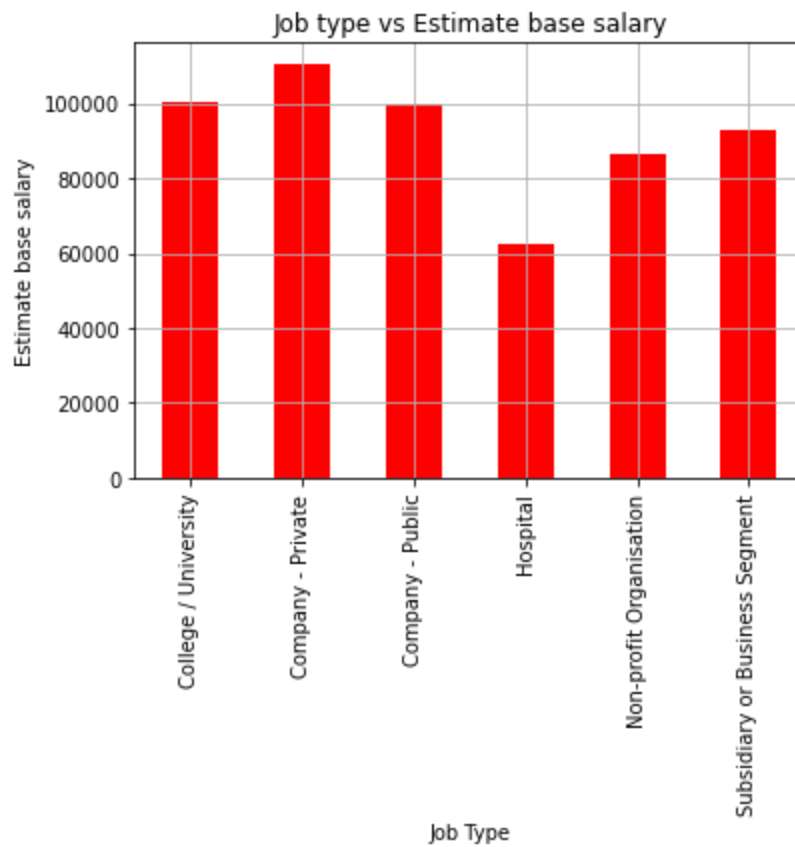
NSW recorded the highest data science job opportunities followed by victoria while NT recorded lowest data science job opportunities.



- **Explore data from two popular job types(Company-Public and Company-Private) and compare this data to the amount of job opportunities.**
so we can find out that Company-Public has the highest data science job opportunities compared to other one.



- **Use a binning method**
slice estimate base salary in a certain lot and analyze those salaries as lower, median and highest with Estimate base salary
- **Use binning method**
slice company size in a certain lot and compare that one with size of company(with total number of employees)
- **Compare the job type with estimate base salary**
We analyzed that private companies provide higher salaries compared to others.



Findings by John Antony:

- **Top and bottom 10 Companies in terms of company ratings and employee satisfaction by setting conditions greater than or equal to 3.5 and less than 4 respectively**

It was interesting to see that none of the well known companies broke into the top 10 mark. We can see which factors are contributing to the companies high rating (eg Compensation and Benefits, Company Culture and Values and Company Work Life Balance.

Top 10 Company

[32]:

	Company Rating	Company Career Opportunities	Compensation and Benefits	Company Culture and Values	Company Work Life Balance
Company					
Profusion Group	4.9	4.2	4.9	4.9	4.7
Give A Grad A Go	4.8	4.6	4.5	4.7	4.7
KJR	4.7	5.0	5.0	5.0	5.0
Eliiza	4.6	4.5	4.0	5.0	4.0
Mission Solutions	4.5	3.9	4.0	4.5	4.5
Fuse Recruitment	4.5	4.1	3.9	3.9	4.1
Defence Services	4.5	3.9	4.0	4.5	4.5
Cash App	4.5	4.5	4.3	4.6	4.2
RedEye	4.5	4.1	4.2	4.5	4.3
TekWissen LLC	4.4	4.2	3.7	4.3	4.3

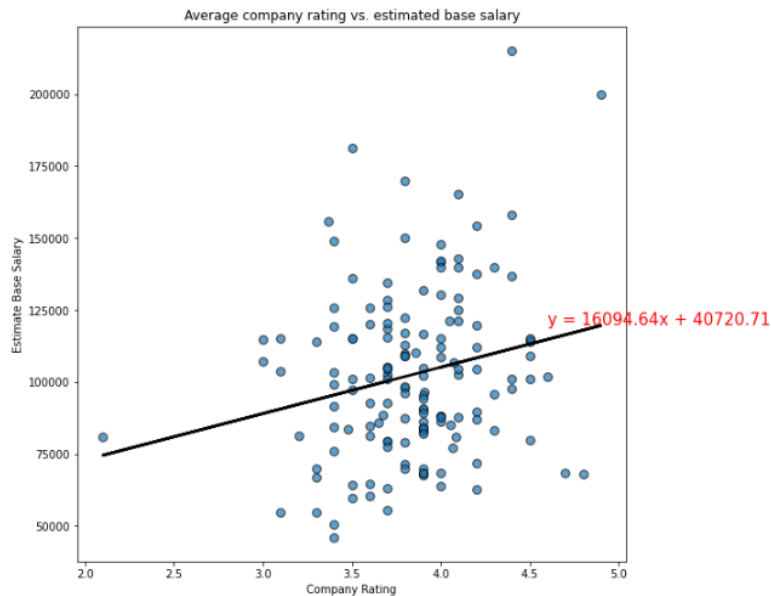
Bottom 10 Company

[33]:

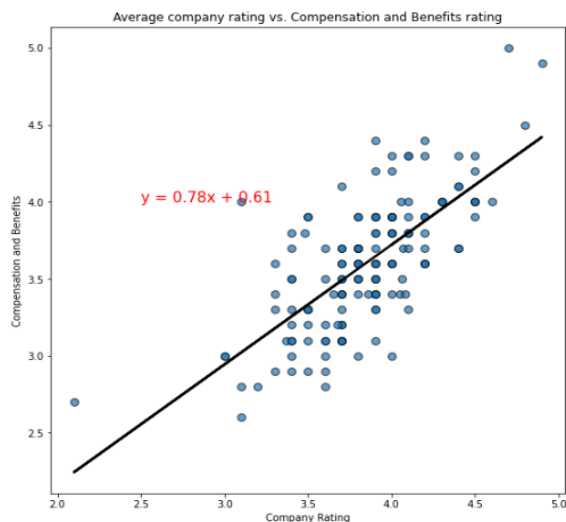
	Company Rating	Company Career Opportunities	Compensation and Benefits	Company Culture and Values	Company Work Life Balance
Company					
Wing	2.1	1.8	2.7	2.0	2.2
Simplot	3.0	2.6	3.0	2.6	2.8
GenesisCare	3.0	3.2	3.0	3.0	2.7
Tibra Capital	3.1	2.7	2.8	2.5	2.7
Australian Laboratory Services	3.1	2.7	2.6	3.0	2.9
Link Group	3.2	3.1	2.8	3.2	3.3
DAC Enterprises Pty Ltd	3.3	3.3	3.6	3.2	2.7
Brewdog Plc	3.3	3.3	3.3	3.0	2.7
Medpace, Inc.	3.3	3.4	2.9	3.2	3.1
AMP Limited	3.3	3.0	3.1	3.2	3.9

- **Correlation between Company rating vs Estimated Base Salary and Company rating vs Compensation and Benefits by using linear regression.**
Based on our findings we can conclude that Company rating vs Estimated Base Salary had a weak correlation and Company rating vs Compensation and Benefits had a strong correlation.

The correlation for Average company rating vs. estimated base salary is 0.21443952658920828.



The correlation for Average company rating vs. Compensation and Benefits rating is 0.7065956495007671.



- **Using Gmaps API to create a heatmap that we can use to visualize which locations have more employment opportunities and highest estimated salary when it comes to data science.**

For this we created two DataFrames, one with max salary, average salary and number of jobs and the second one had a list of cities, latitude and longitude. We then merged them into one DataFrame and created a heat map with marker layer using Geocode API. From this we can visualize which locations have the most opportunities and max salary.

Out[41]:

	Job Location	Max_salary	Average_Salary	Count_Jobs	State
0	Adelaide	188296	97493.344828	58	South Australia
1	Adelaide	188296	97493.344828	58	South Australia
2	Adelaide	188296	97493.344828	58	South Australia
3	Adelaide	188296	97493.344828	58	South Australia
4	Adelaide	188296	97493.344828	58	South Australia
...
1054	Wollongong	115000	114351.500000	18	New South Wales
1055	Wollongong	115000	114351.500000	18	New South Wales
1056	Wollongong	115000	114351.500000	18	New South Wales
1057	Wollongong	115000	114351.500000	18	New South Wales
1058	Wollongong	115000	114351.500000	18	New South Wales

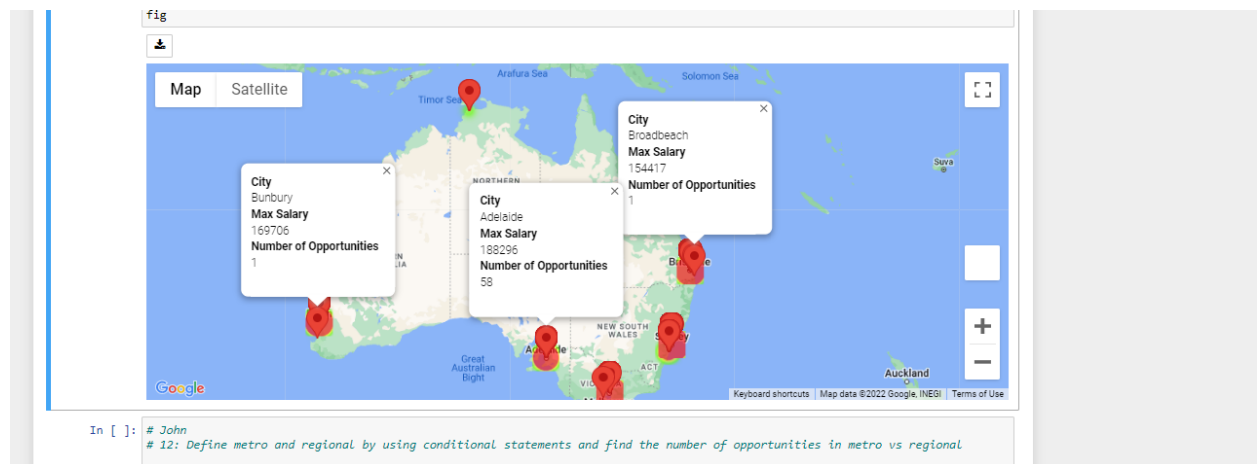
1059 rows × 5 columns

[44]:

	Job Location	Max_salary	Average_Salary	Count_Jobs	State	lat	lng
0	Adelaide	188296	97493.344828	58	South Australia	-34.928499	138.600746
1	Adelaide	188296	97493.344828	58	South Australia	-34.928499	138.600746
2	Adelaide	188296	97493.344828	58	South Australia	-34.928499	138.600746
3	Adelaide	188296	97493.344828	58	South Australia	-34.928499	138.600746
4	Adelaide	188296	97493.344828	58	South Australia	-34.928499	138.600746
...
1054	Wollongong	115000	114351.500000	18	New South Wales	-34.424834	150.893113
1055	Wollongong	115000	114351.500000	18	New South Wales	-34.424834	150.893113
1056	Wollongong	115000	114351.500000	18	New South Wales	-34.424834	150.893113
1057	Wollongong	115000	114351.500000	18	New South Wales	-34.424834	150.893113
1058	Wollongong	115000	114351.500000	18	New South Wales	-34.424834	150.893113

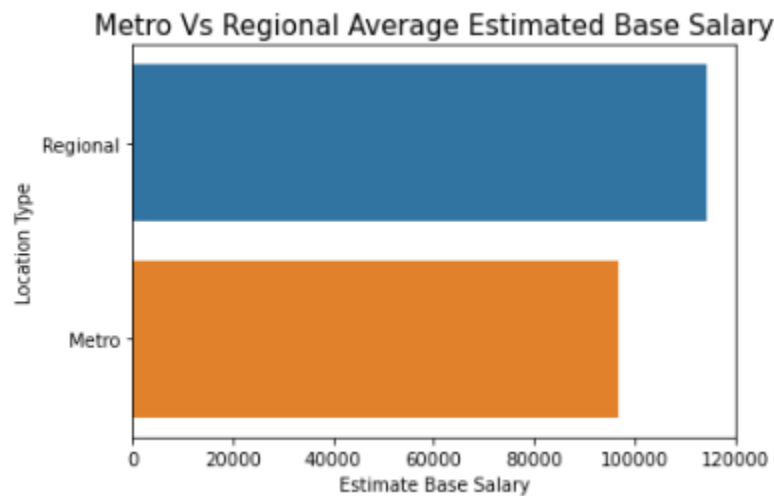
1059 rows × 7 columns

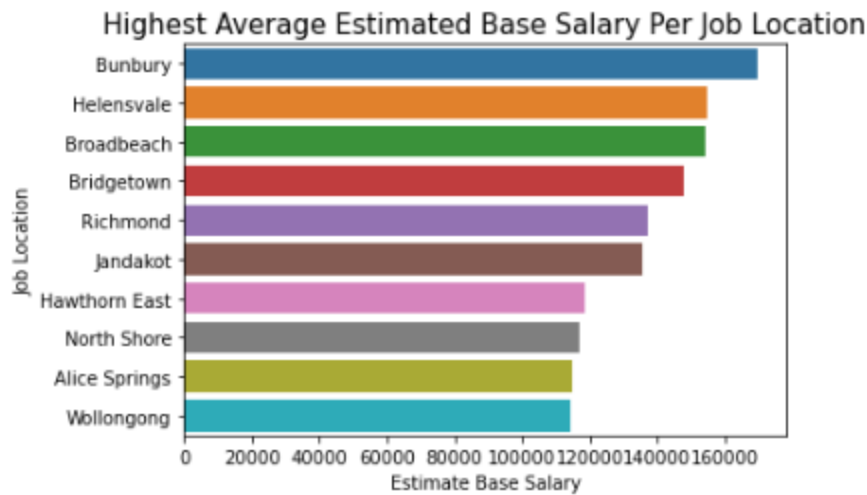
Heat Map with Marker layer



-Define metro and regional by using conditional statements and find the number of opportunities and average base salary in metro vs regional.

Based on the below charts we can conclude that regional locations have higher base salaries.





Based on the below charts we can conclude that Metro locations have more job opportunities. Also can conclude that for metro locations, Sydney has the most opportunities and for regional locations it is Wollongong.

