**TEAM 15 – Rasty Abdulrahman, Awale Abdi, Salman Mohmmed**

**Hostname:** rastyawalesalman.mysql.database.azure.com

**Credentials for professor to access was coded in as:**

CREATE USER ‘prof\_luis’@’%’

IDENTIFIED BY ‘clever\_password’;

GRANT SELECT ON `h1b` .\* TO `prof\_luis`;

**Executive Summary**

To an international student under an F1 visa seeking employment in the U.S. who also seeks to increase their chances of receiving an H1B Visa, we advise first making sure the future salary they aim for is at least at 75,000 USD or above as the average prevailing wage amongst applicants is at 75,816 USD. Aiming for lower would lower their chances at securing a fruitful job that could also lead to an H1B Visa. We further advise making sure that they are not willful violators. The reasoning being that willful violators have been rejected and had to make applications over 10 times more than those who are not willful violators. It would be an unfortunate waste of time to acquire a desirable job, apply for an H1B visa and then be rejected due to being a willful violator.

Once these factors are covered, we would suggest the student mainly look at California, New York, New Jersey, Texas or Pennsylvania. These states receive the highest number of H1B visa applications and therefore have the highest demand in terms of skilled jobs. They are not only places of interest in regard to finding a job but also increasing one’s chances of receiving an H1B visa as a result of their high demand.

Finally, we would advise aiming for work-fields such as Software Development, Mechanical Engineering and Medical & Clinical Laboratory work or specific jobs such as being a General Radiologist, Critical Care Physician, Obstetrician, Breast Surgeon or Vascular Surgeon as the former receive the highest number of applications and are thus the highest in demand across the United States whilst the latter offer the highest overall pays. They would further be wise choices in order to increase one’s odds of receiving an H1B visa alongside finding generally high paying and in demand work.

**Queries, Questions Answered and Results**

**Component of Executive Summary:**

Aiming for a salary of about 75,000 US dollars or more as 75,000 is the average among applicants. Anything less would lower their chances of securing an H1B Visa.

**Query:**

USE h1b;

SELECT AVG(ER.Prevailing\_Wage) AS Avg\_Prevailing\_Wage

FROM application\_information AI

INNER JOIN employment\_record ER ON AI.Record\_ID = ER.Record\_ID;

**Result:**

A close-up of a number

Description automatically generated

**Component of Executive Summary:**

Making sure they are not a willful violator as willful violators have been rejected and had to make applications over 10 times more than those who are not willful violators.

**Query:**

USE h1b;

SELECT AI.Willful\_Violator, COUNT(AI.Case\_Number) AS Application\_Count

FROM application\_information AI

GROUP BY AI.Willful\_Violator;

**Result:**

A screenshot of a computer

Description automatically generated

**Component of Executive Summary:**

Aiming for either California, New York, New Jersey, Texas, or Pennsylvania for their applications. They tend to receive the most applications which implies they have the most need for skilled workers who would qualify for an H1B Visa.

**Query:**

USE h1b;

SELECT E.Employer\_State, COUNT(AI.Case\_Number) AS Total\_Applications

FROM Employer E

INNER JOIN Employment\_Record ER ON E.Employer\_ID = ER.Employer\_ID

INNER JOIN Application\_Information AI ON ER.Record\_ID = AI.Record\_ID

GROUP BY E.Employer\_State

ORDER BY Total\_Applications DESC

LIMIT 5;

**Result:**

A screenshot of a computer

Description automatically generated

**Component of Executive Summary:**

Aiming for work fields such as Software Development, Mechanical Engineering and being a Medical and Clinical Laboratory Technologist as they tend to receive the highest number of applications, implying they have the highest demand.

**Query:**

USE h1b;

SELECT

ER.Soc\_Title,

COUNT(AI.Case\_Number) AS Application\_Count

FROM

Employment\_Record ER

INNER JOIN

Application\_Information AI ON ER.Record\_ID = AI.Record\_ID

GROUP BY

ER.Soc\_Title

ORDER BY

Application\_Count DESC

LIMIT 4;

**Result:**

A close-up of a computer screen

Description automatically generated

**Component of Executive Summary:**

Finally, also perhaps aiming for careers such as General Radiologist, Critical Care Physician, Obstetrician, Breast Surgeon, and Vascular Surgeon as these jobs have the highest prevailing wages and the higher the prevailing wage the higher the chances of securing an H1B Visa.

**Query:**

SELECT ER.Job\_Title, AVG(ER.Prevailing\_Wage) AS Avg\_Prevailing\_Wage

FROM Employment\_Record ER

INNER JOIN Application\_Information AI ON ER.Record\_ID = AI.Record\_ID

GROUP BY ER.Job\_Title

ORDER BY Avg\_Prevailing\_Wage DESC

LIMIT 5;

**Result:**

