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Module 3 Query Analysis

**Task:** *“Please provide your answers within a PDF file with a description of the query you used (and why).”*

**Question 1: How many entries do you have in your database who have applied for Fall 2025?**

Answer: Applicant count: 9899

Query Used: *"SELECT COUNT(\*) FROM applicants WHERE term = 'Fall 2025'"*

Reason: The query will COUNT how many entries are included in table ‘applicants’ where the value of the column “term” is “Fall 2025”.

**Question 2: What percentage of entries are from international students?**

Answer: *Percent international: 57.47%*

Query Used: *""SELECT COUNT(\*) FROM applicants WHERE us\_or\_international = 'International'""*

*""SELECT COUNT(\*) FROM applicants""*

Reason: The first query COUNTs how many entries from the “us\_or\_international” column have the value “International.” The second query COUNTs the total number of entries in the table. I divide the first value by the second to get the percentage.

**Question 3: What is the average GPA, GRE, GRE V, GRE AW of applicants who provide these metrics?**

Answer: *3.73, 164.2, 158.24, 4.14*

Query Used: *""SELECT*

*AVG(gpa),*

*AVG(gre),*

```

    AVG(gre_v),
    AVG(gre_aw)
FROM applicants
WHERE
    gpa BETWEEN 0 AND 4.3 AND
    gre BETWEEN 130 AND 170 AND
    gre_v BETWEEN 130 AND 170 AND
    gre_aw BETWEEN 0 AND 6""

```

Reason: The query takes an AVG of each of the four scores. It only includes values from the provided ranges in the WHERE block, in order to filter out extraneous values.

#### **Question 4: What is their average GPA of American students in Fall 2025?**

Answer: 3.72

Query Used: ""SELECT

```

    AVG(gpa)
FROM applicants
WHERE
    us_or_international = 'American' AND
    term = 'Fall 2025'""

```

Reason: This query uses the AVG function to find the mean GPA. It uses the WHERE function to filter for only Americans that start in Fall 2025.

#### **Question 5: What percent of entries for Fall 2025 are Acceptances?**

Answer: 39.73%

Query Used:

```

""SELECT COUNT(*) FROM applicants
WHERE term = 'Fall 2025'""

```

```
""SELECT COUNT(*) FROM applicants  
WHERE term = 'Fall 2025' AND status ILIKE '%accept%'""
```

Reason: The first query uses the COUNT function to find the total number of applicants where their start term is Fall 2025. The second query COUNTs all applicants where the start term is Fall 2025 AND uses the ILIKE command to find the applicants that have been accepted.

**Question 6: What is the average GPA of applicants who applied for Fall 2025 who are Acceptances?**

Answer: Answer: 3.58

Query Used: ""SELECT AVG(gpa)  
FROM applicants  
WHERE  
term = 'Fall 2025' AND  
status ILIKE '%accept%' AND  
gpa BETWEEN 0 AND 4.3""

Reason: The query uses the AVG function to find the mean GPA of applicants that satisfy the criteria in the WHERE block. The applicants 'term' must be 'Fall 2025', the 'status' must include the word 'accept', and the GPA must be between 0 and 4.3 (to filter out any extraneous values).

**Question 7: How many entries are from applicants who applied to JHU for a masters degrees in Computer Science?**

Answer: Applicant count: 9

Query Used: ""SELECT COUNT(\*)  
FROM applicants  
WHERE  
program ILIKE '%johns hopkins%' AND  
program ILIKE '%computer science%' AND  
degree ILIKE '%master%'""

Reason: This query uses the COUNT function to quantify all the applicants pass through each filter. The WHERE block uses the ILIKE function to search for key terms in like 'johns Hopkins'.