**ENGLISH DEPARTMENT’S STUDENTS DATA ANALYSIS REPORT**

Prepared for: Data Research Project

Date: 02 February, 2025

**Introduction**

This report presents an in-depth analysis of student data based on various parameters such as GPA, gender distribution, favorite genres, attendance, research interests, study hours, internet using hours, and movie watching hours. The analysis aims to answer key questions related to student performance, preferences, and study habits.

**Q1. What is the average GPA for each semester?**

We need to go through a process to identify the answer

Steps:

* Select the data
* Insert a pivot table in excel
* Drag semester to Rows
* Drag GPA to values (change to average)

Here is the result

|  |  |
| --- | --- |
| **Semester** | **Average of GPA** |
| 1 | 2.925 |
| 2 | 2.944 |
| 3 | 2.892 |
| 4 | 3.002 |
| 5 | 3.042 |
| 6 | 2.914 |
| 7 | 2.923 |
| 8 | 3.004 |

**Q2. How many students are there by gender and their favorite genre?**

Steps:

* Select data
* Insert a pivot table in excel
* Drag gender to rows
* Drag favorite genre to column
* Drag student id to values (change to Count)

The result is shown below

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender** | **Favorite Genre** | | | | | | |
| Drama | Fiction | Mystery | Non-fiction | Poetry | Romance | Science Fiction |
| Female | 160 | 86 | 84 | 84 | 95 | 96 | 68 |
| Male | 144 | 89 | 89 | 80 | 92 | 93 | 79 |

**Q3. What is the total attendance percentage by Research Topic?**

Steps:

* Drag Research Topic to Rows in pivot table
* Drag Attendance Percentage to Values (change to Sum)

The result is-

|  |  |
| --- | --- |
| **Research Topic** | **Sum of Attendance (%)** |
| American Fiction | 12106 |
| Digital Humanities | 12569 |
| Feminist Criticism | 19866 |
| Modernist Literature | 12759 |
| Postcolonial Theory | 10610 |
| Romantic Poetry | 11752 |
| Shakespearean Plays | 17918 |

**Q4. What is the average number of hours studied per week for students based on their semester and gender?**

Steps:

* Drag Semester to Rows
* Drag Gender to Columns
* Drag Hours Studied Per Week to Values (change to Average)

The Result- Here is the Average of Hours Studied /Week

|  |  |  |
| --- | --- | --- |
| **Semester** | **Gender** | |
| **Female** | **Male** |
| 1 | 10.222 | 10.184 |
| 2 | 10.253 | 11.050 |
| 3 | 10.455 | 10.575 |
| 4 | 9.444 | 10.938 |
| 5 | 9.362 | 10.027 |
| 6 | 10.116 | 9.802 |
| 7 | 10.898 | 10.227 |
| 8 | 9.986 | 10.3 |

**Q5. Which favorite genre has the highest average GPA?**

Steps:

* Drag favorite genre to Rows
* Drag GPA to Values (change to Average)
* Find the highest value of average GPA through Conditional Formatting

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| --- | --- |
| **Favorite Genre** | **Average of GPA** |
| Drama | 2.865 |
| Fiction | 2.956 |
| **Mystery** | 3.048 |
| Non-Fiction | 2.974 |
| Poetry | 2.960 |
| Romance | 2.931 |
| Science Fiction | 3.026 |

The highest average GPA belongs to the favorite genre **Mystery.**

**Q6. Which semester has the lowest average attendance percentage? Show the data in Pie chart.**

Steps:

* Drag Semester to Rows
* Drag Attendance Percentage to Values (change to Average)
* Find the lowest value through Conditional Formatting
* Insert a Pie chart: select the pivot table-insert-Pie chart

|  |  |
| --- | --- |
| **Semester** | **Average of Attendance (%)** |
| 1 | 75.175 |
| 2 | 71.52 |
| 3 | 72.782 |
| 4 | 73.771 |
| 5 | 74.251 |
| 6 | 72.120 |
| 7 | 72.688 |
| 8 | 71.298 |

Semester 8 has the lowest average Attendance Percentage. Which is **71.298**

**Q7. What is the average daily internet usage and average movie watching hours per week by Research Topic? Show the data in Bar chart.**

Steps:

* Drag Research Topic to Rows
* Drag Daily Internet Usage to Values (change to Average)
* Drag Weekly Movie Watching Hours to Values (change to Average)
* Insert a Bar Chart

|  |  |  |
| --- | --- | --- |
| **Research Topic** | **Average of Daily Internet Using Hour** | **Average of English Movie Watching Hour/week** |
| American Fiction | 2.384 | 3 |
| Digital Humanities | 2.352 | 2.917 |
| Feminist Criticism | 2.326 | 3.017 |
| Modernist Literature | 2.494 | 2.982 |
| Postcolonial Theory | 2.312 | 2.875 |
| Romantic Poetry | 2.318 | 2.975 |
| Shakespearean Plays | 2.322 | 2.931 |

**Bar Chart**

**Q8. Which Research Topic is most popular among students with a GPA above 3.0?**

Steps:

* Drag a Research Topic to Rows
* Drag Student Id TO Values (change to Count)
* Apply a filter to GPA (greater than 3.0)
* The Research Topic with the highest count is the most popular

|  |  |
| --- | --- |
| **Research Topic** | **Count of Student ID** |
| American Fiction | 75 |
| Digital Humanities | 96 |
| Feminist Criticism | 122 |
| Modernist Literature | 85 |
| Postcolonial Theory | 64 |
| Romantic Poetry | 66 |
| Shakespearean Plays | 128 |

Shakespearean Plays is the most popular Research Topic.

**Q9. Which research topic is dominated by male vs female students?**

Steps:

* Drag Research Topic to Rows
* Drag Gender to Columns
* Drag Student ID to Values (change to Count)
* Compare the male vs female counts per research topic

|  |  |  |
| --- | --- | --- |
| **Research Topic** | **Gender** | |
| **Female** | **Male** |
| American Fiction | 70 | 94 |
| Digital Humanities | 82 | 88 |
| Feminist Criticism | 170 | 109 |
| Modernist Literature | 88 | 86 |
| Postcolonial Theory | 66 | 78 |
| Romantic Poetry | 68 | 92 |
| Shakespearean Plays | 129 | 119 |

**Feminist Criticism** is dominated by **Female** and **Shakespearean Plays** is dominated by **Male**

**Q10. Do students who prefer Poetry tend to have higher or lower GPAs than those who prefer Fiction?**

Steps:

* Drag favorite genre to Rows
* Drag GPA to Values (change to Average)
* Compare the average GPAs of Poetry vs Fiction

|  |  |
| --- | --- |
| **Favorite Genre** | **Average of GPA** |
| Fiction | 2.956 |
| Poetry | 2.960 |

Students who prefer **Poetry** tend to have higher GPAs than those who prefer Fiction.

**The End**