**Faiza Excel Portfolio Project 02**

**Objective:**

Your primary objective is to determine how the ed-tech company can have the most impact in improving the current education situation in Punjab specifically by addressing key constraints and the funds allocated to them:

The following are the responses of some key questions relevant to the project.

● Determine the total number of schools present in the dataset.

Response:

48174

● Identify the lowest students of school\_Gender(male & female) by school level of

schools established in the 2000s

Response:

In the year 2000 total of 162 school were established. It was 3% of the total establishments. Most of the established is in the primary and female category and it counts 95.

Higher secondary female are the least in 2000=3

Secondary male are least in 2000=2

|  |  |  |
| --- | --- | --- |
| Female |  | 125 |
|  | H.Sec. | 3 |
|  | Middle | 20 |
|  | Primary | 95 |
|  | Secondary | 7 |
| Male |  | 37 |
|  | Middle | 8 |
|  | Primary | 22 |
|  | Secondary | 2 |
|  | sMosque | 5 |
| **Grand Total** |  | **162** |

● Determine the top 5 districts with the highest number of teachers and non-teachers in schools.

Response:

Top 5 district by Sum of Teacher : Faisalabad, Rahimyarkhan, Rawalpindi,

Lahore Sargodah.

|  |  |
| --- | --- |
| **Teachers** | **district** |
| 109 |  |
|  | SAHIWAL |
| 101 |  |
|  | VEHARI |
| 98 |  |
|  | LAHORE |
|  | NANKANA SAHIB |
| 95 |  |
|  | SHEIKHUPURA |
| 93 |  |
|  | MULTAN |
|  | RAWALPINDI |
| **Grand Total** |  |

Top 5 district by Sum of Non Teacher : Multan, Nankana sahib, Rawalpindi, sahwal, vehari, Shekhupura, verhari.

Non Teacher

Teachers

● Explore the school level and medium that have the lowest number of functional

classrooms.

Response: Zero level of functional classroom by school level and medium are total 706 in which 583 are urdu medium, 82 both and 41 English medium school.

|  |  |
| --- | --- |
| **functional\_classrooms** | 0 |
|  |  |
| **medium** | **Count of school\_level** |
| Both | 82 |
| English | 41 |
| Urdu | 583 |
| **Grand Total** | **706** |

● Create a bar chart showcasing the distribution of teachers across different schools.

Distribution of teacher by level

●Calculate the number of male and female students (School\_Gender)

Response: 48174

School level and school gender.

Both

|  |  |
| --- | --- |
| **gender\_studying** | Both |
|  |  |
| **school\_level** | **Count of gender\_studying** |
| H.Sec. | 115 |
| Middle | 4310 |
| Primary | 24109 |
| Secondary | 1410 |
| sMosque | 368 |
| **Grand Total** | **30312** |

Female

|  |  |
| --- | --- |
| **gender\_studying** | Female |
|  |  |
| **school\_level** | **Count of gender\_studying** |
| H.Sec. | 302 |
| Middle | 1916 |
| Primary | 3502 |
| Secondary | 2143 |
| sMosque | 1 |
| **Grand Total** | **7864** |

Male

|  |  |
| --- | --- |
| **gender\_studying** | Male |
|  |  |
| **school\_level** | **Count of gender\_studying** |
| Both | 1 |
| H.Sec. | 334 |
| Middle | 2062 |
| Primary | 4406 |
| Secondary | 3118 |
| sMosque | 66 |
| **Grand Total** | **9987** |

● Count the number of schools in rural and urban areas

Urban

Rural

calculate the percentage of schools offering Urdu and English medium education or both in each category.

Response:

|  |  |  |
| --- | --- | --- |
| **medium** | **Count of medium** | **Percentage** |
| Both | 9414 | 9414/48174=19% |
| English | 5485 | 5485/48174=11% |
| Urdu | 33263 | 33263/48174=69% |
| **Grand Total** | **48174 Including**  **all others** |  |

● Identify the district with the highest enrollment in primary schools since their

establishment.

Response:

Toba Tek Singh (T.T.SINGH) district has the highest enrollment in primary. The enrollment is 1429.

● Determine the district with the highest enrollment in secondary schools since their

establishment.

Response:

Gujrat district has the highest enrollment in secondary. The enrollment is 5283.

● Find the district with the highest enrollment in higher secondary schools since

their establishment.

Response:

FAISALABAD district has the highest enrollment in Higher secondary. The number of enrollments 5727.

● Create a bar chart displaying the distribution of schools according to school\_level

Response:

|  |  |
| --- | --- |
| **school\_level** | **Count of school\_name** |
| Both | 1 |
| Community School | 1 |
| Govt. School | 9 |
| H.Sec. | 751 |
| Middle | 8288 |
| Model School | 1 |
| Primary | 32017 |
| Secondary | 6671 |
| sMosque | 435 |
| **Grand Total** | **48174** |

● Generate a bar chart representing the number of students categorized by gender

(School\_Gender).

Response:

|  |  |
| --- | --- |
| **school\_gender** | **Sum of enrollment** |
| Both | 32 |
| Female | 6223571 |
| Male | 5734129 |
| Rural | 0 |
| **Grand Total** | **11957732** |

● Create a table showcasing the school\_ownership with respect to schools.

Response:

|  |  |
| --- | --- |
| **school\_ownership** | **Count of school\_name** |
| 0 | 1 |
| 1 | 11 |
| Building Provided By Local Residents | 1029 |
| Education Department | 45644 |
| Municipal Building | 537 |
| On Rent | 184 |
| Property Of Any Other Institution Besides The Municipal Institution | 131 |
| Running In The Mosque | 128 |
| School Council provided building | 84 |
| Some Other Govt. School | 149 |
| (blank) | 276 |
| **Grand Total** | **48174** |

● Visualize the distribution of teachers based on their respective job posts using a bar chart.

Response:

|  |  |
| --- | --- |
| **school\_level** | **Sum of Teachers** |
| Both | 58 |
| Community School |  |
| Govt. School | 2 |
| H.Sec. | 24794 |
| Middle | 90569 |
| Model School |  |
| Primary | 141455 |
| Secondary | 133246 |
| sMosque | 1011 |
| **Grand Total** | **391135** |

● Create a pie chart to show the percentage of vacant and filled teaching and

non-teaching posts.

Response:

In the dataset there is no information of the vacant and filled teaching and non teaching posts.

● Determine the percentage of schools with satisfactory building conditions

(bldg\_condition).

Response: 74.9%

|  |  |
| --- | --- |
| **bldg\_condition** | **Count of school\_name** |
| 0 | 2 |
| 1 | 1 |
| 2 | 6 |
| 7 | 1 |
| 16 | 1 |
| Building Is Dangerous | 457 |
| Complete Building Needs Repairing | 1485 |
| Completely Solid | 1 |
| Needed Minor Repairing | 7997 |
| Partial Building is Dangerous | 1891 |
| Satisfying | 36093 |
| (blank) | 239 |
| **Grand Total** | **48174** |

● Calculate the number of schools with satisfactory security measures.

Response: 33857

|  |  |
| --- | --- |
| **security** | **Count of school\_name** |
| 0 | 10 |
| 1 | 1 |
| Available | 1 |
| Completed | 1 |
| Not Available | 11228 |
| Not Satisfying | 3076 |
| Satisfying | 33857 |
| **Grand Total** | **48174** |

● List the names of the 5 districts with the lowest availability of drinking water facilities in schools.

Response: Zero drinking water facilities are major in the D.G Khan, Rewalpini, Rajanpur, Bahawalnagar, Mianwali.

● Identify the names of the 5 districts with the lowest availability of electricity in schools.

Response: Top 5 district with maximum school having no electricity.

Rahimyarkhan, Bahawalpur, Bahawalnagar, Muzzafargar, D. G. Khan

● Determine the names of the/ 5 districts with the lowest presence of boundary walls in schools.

Response: Top 5 district with maximum schools having no boundary wall. Bahwalnagar, Rawalpindi, Jhang, TT Singh, Sahiwal.

● List the names of the 5 districts with the lowest availability of toilets in schools.

Response: Top 5 district with maximum schools having no boundary wall. Bahwalnagar, Rahimyarkhan, DG Khan, Rajanpur, Muzzafargar.