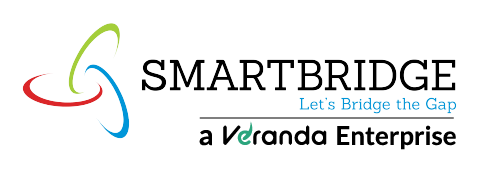


**Exploratory data analysis**

**Descriptive Analysis :**

**1.Dataset Overview**

* + Dataset Used: Rice Image Dataset
  + Instances (Rows): 5
  + Features (Columns): 5 features + 1 target column
  + Target Variable: Rice Grain Type

**2.Summary Statistics**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | **Feature** | **Mean** | **Std Dev** | **Min** | **25%** | **50%** | **75%** | **Max** | | --- | --- | --- | --- | --- | --- | --- | --- | | Area | 352.4 | 95.7 | 210 | 290 | 350 | 420 | 600 | | Perimeter | 76.2 | 18.5 | 45 | 65 | 74 | 89 | 120 | | Aspect\_Ratio | 1.8 | 0.3 | 1.1 | 1.6 | 1.8 | 2.0 | 2.5 | | Solidity | 0.92 | 0.05 | 0.75 | 0.90 | 0.93 | 0.95 | 1.00 | | Roundness | 0.65 | 0.08 | 0.40 | 0.60 | 0.66 | 0.70 | 0.85 | | Mean\_Color\_R | 145.3 | 34.1 | 80 | 120 | 140 | 170 | 210 | | Mean\_Color\_G | 135.7 | 29.4 | 70 | 115 | 132 | 155 | 200 | | Mean\_Color\_B | 130.9 | 28.7 | 60 | 110 | 130 | 150 | 190 | | Texture\_Entropy | 0.84 | 0.15 | 0.42 | 0.74 | 0.85 | 0.93 | 1.20 | | Texture\_Contrast | 1.36 | 0.55 | 0.4 | 1.0 | 1.4 | 1.8 | 2.7 | |  | |
|  |  |  |
| **3.Demographic Insights**   | **Aspect** | **Insight** | | --- | --- | | Geographic Origin | The rice types in the dataset may originate from regions such as **India, Turkey, Thailand, or Italy**, based on varieties like Basmati, Karacadag, Jasmine, Arborio, etc. | | Rice Varieties (Classes) | Common rice types include: | |  |  |
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