Data Collection and Preprocessing Phase

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| Date | 20 June 2025 |
| Name | Shambhuraj Jaysing Patil |
| Project Title | Restaurant Recommendation System |
| Maximum Marks | 2 Marks |

**Data Quality Report Template**

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| **Data Source** | **Data Quality Issue** | **Severity** | **Resolution Plan** |
| Dataset (Restaurant reviews and metadata) | Missing values in fields like restaurant name, location, or ratings | Moderate | Perform data imputation using techniques like mean/mode for numeric values and most frequent value for categorical data. Alternatively, remove rows with critical missing fields. |
| Dataset (User reviews)  Dataset (Timesta mp field) | Duplicate user review entries  Inconsistent or incorrect timestamp format | Low  Moderate | Remove duplicate records using drop\_duplicates() in pandas or SQL DISTINCT queries. Use datetime parsing libraries (e.g., pandas.to\_datet ime) to standardize all date/time fields. |

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| Dataset (Restaura nt metadata  ) | Inconsistent formats (e.g., location written in different ways like "NY", "New York") | Moderate | Apply data standardization techniques, using string functions or regex patterns to unify the format. |
| Dataset (User preferenc es) | Sparse data or insufficient user history | High | Implement fallback strategies such as popularity-based or content-based recommendations when user data is lacking. |