**Working with Tableau Work Builder**

**Overview**

This document provides detailing on how to work with Tableau Prep Builder for data transformation. This covers various tasks including data import, cleaning, and transformation steps such as removing unknown columns, replacing and changing data types, splitting and joining data, and exporting the final dataset into the .tde and .hyper formats at the end where tableau prep builder allows to view data analytics through tableau desktop when in between of cleaning process of data.

Actions performed in Tableau Prep Builder includes-

1.Data Import

2. Data Cleaning

3. Building Flows

4.Saving cleaned data into .tde, .hyper, csv formats.

**1. Importing Data-**

Open Tableau Prep Builder. Import your dataset by selecting the source file. Source file can imported through csv, Text files, Excel files, JSON files, Parquet and flat files, data from APIs, and cloud as well including connectors like JDBC.Review the imported data in the profile pane to ensure all necessary columns are loaded correctly.

**2.Data Cleaning-**

* Removing Unknown Columns**-**Identify any columns that contain unknown or irrelevant data and those columns can be removed easily after adding cleaning step with flow.
* Replacing and Changing Data Types-Use the Replace Values function to correct or standardize data within specific columns.Change the data types as necessary easily by clicking next to column name.
* Using the Clean Option-Utilize the "Clean Step" to remove unnecessary spaces, numbers and letters, and lowercase or uppercase text, or fix date formats and with clean step, Trim spaces also be done easily.
* Saving Flow Files-Once all transformations are completed, save the flow as .tfl in the flows/ directory.
* Grouping and Replacing Values-Use “Group and Replace” to merge similar values into a single group.
* Splitting Column Data-Split data within a column based on a delimiter or character position Using “Split Values” option can be Automatic split and Custom split can be done.
* Creating Columns with IF Clauses-Create a calculated field using IF statements to derive new values.
* Example: IF [Age] >= 18 THEN 'Adult' ELSE 'Minor' END
* With flows, Union and Join operations can be done that can join different data files and add similar files data.
* Using Data Interpreter-
* Use the "Data Interpreter" to automatically clean and prepare data, especially when dealing with Excel files.
* Pivoting Data-Pivot columns into rows or vice versa to restructure the dataset.
* Adding Aggregate Operations-Aggregate data to summarize information, such as calculating averages, count distinct values, totals etc..

**3. Save and Export the cleaned data-**

Exporting to .tde and .hyper Formats-Export the cleaned data into .tde and .hyper formats using the "Output Step."