20.1 Lesson Summary - Time to Tableau Some Minds

Tableau is an excellent tool for summarizing and visualizing data. Tableau is capable of pulling data from a number of different sources, combining and reorganizing it to display results similar to Excel Pivot Tables and Charts.

Concept: **Tableau** is able to connect to Excel, CSV, and JSON data files in addition to MySQL and MongoDB databases. To connect to an **Excel** file, select 'Microsoft Excel' from the list of file types to connect to. Browse to the Excel file you wish to connect to and select 'Open'. The Worksheets of the Excel file will be displayed on the left-hand side of the screen. To work with the data in a worksheet double click that worksheet or drag it into the top of the center pane. You can view the data but you cannot edit the worksheet's source data. You can filter the data you're viewing by selecting the 'Add' option under 'Filter' in the top right corner of the application.

* Activity: 01-Ins\_LoadingData

Concept: After you have chosen your data source you can use Tableau to reorganize and plot your data similar to using Excel **Pivot Tables** and **Charts**. The data you can work with is displayed in the left 'Data' pane. **Dimensions** are categorical data that can be used to organize your visualizations while **Measures** are numerical data. To add a category to the rows of your visualization you drag the preferred dimension to the Rows field in the top center of Tableau's UI. To display a simple bar chart of the sum of a Measure 'My\_Measure' for each category 'My\_Dimension' you would drag 'My\_Dimension' to the Rows section of the UI and 'My\_Measure' to the Columns section of the UI making sure that 'My\_Measure' is summed. To view a bar chart if the option wasn't automatically selected you could choose the bar chart example from the chart options in the right UI pane.

* Activity: 02-Ins\_BasicVisuals, 03-Stu\_Exploration, 04-Stu\_NoShow

Concept: **Joining** data is quite intuitive in Tableau. Once you have selected your primary data simply drag another data source into the main area to join the two sources. Tableau will intelligently guess how you wish to join the data sources. If you wish to change how your data was joined click on the data source relationship on top of the data UI.

* Activity: 05-Ins\_EasyJoins, 06-Stu\_FIFAPlayers,

Concept: To change the **color** and **layout** of your visualizations you can edit the settings in the **'Marks'** section of the UI.

* Activity: 07-Stu\_UltimateCandy

Concept: Tableau's '**Story**' feature offers you functionality similar to combining Excel Visualizations with PowerPoint slides. To create a Story select the 'New Story' option from the 'Story' dropdown menu. Stories consist of a sequence of pages. To add a new page to a Story select the 'New Story Point' option in the left UI pane.

* Activity: 08-Ins\_Storytelling, 09-Stu\_DegreesPay