

	A	B
1	<b>COURSE OUTLINE</b>	
2		
3	<b>Program Name:</b> Alteryx - Beginner to Intermediate	
4	<b>Software App:</b> Alteryx	
5	<b>Duration:</b> 8.0 hrs. (10 AM - 6 PM)	
6	<b>Target Learners:</b> 1st time users of Alteryx; Has attended the 90-mins Alteryx Beginner's Orientation Session	
7		
8	<b>Program Objective:</b>	
9	By the end of this session, you will be able to:	
10	1. Understand the use case of Top 30 Alteryx tools for data preparation & automation	
11	2. Use Alteryx to clean-up unstructured data	
12		
13	<b>Important Note:</b>	
14	This is a hands-on practice based workshop. Learners are expected to complete the program pre-requisites before	
15	the start of the program.	
16		
17	<b>Program Pre-requisite:</b>	
18	1. Attend the 90-mins Alteryx Beginner's Orientation Session	
19	2. Download Alteryx and check if its activated for use i.e. You can drag and drop tools in the canvas (workflow area).	
20	3. Download the datasets and case studies from the link provided in the 'Joining Instructions' email	
21		
22	<b>1 INTRODUCTION TO ALTERYX</b>	
23		
24	Concept: Create a "Repeatable Workflow" using "Specialist Tools"	
25		
26	Walkthrough of the User Interface (UI) & Understanding essential terminologies:	
27	- Workflow	
28	- Favorites Palette	
29	- Workflow Canvas	
30	- Tool Palettes - Input vs Output Anchor	
31	- Configuration Panel	
32	- Preview Window (Metadata)	
33	- Search Box (Tools)	
34	- Tool Name - Activate Annotation	
35	- Shortcut to Run the Workflow (Ctrl + R)	
36	- Checking Data Input and Output	
37	- Extension: YXMD vs YXMP	
38		
39	<b>2 ESSENTIAL TOOLS OF ALTERYX</b>	
40		
41	<b>IN/OUT - INPUT DATA:</b>	
42	Single Access Point for any data file or connection (Import)	
43	Select a sheet; List of sheet names	
44	Start reading on specified line number	
45	Use wildcard character asterisk for importing multiple files in a folder	
46		
47	<b>IN/OUT - BROWSE:</b>	
48	View data profile information (nulls, uniques, non-nulls) in a visual format	
49	Shortcut: Ctrl Shift B	
50		
51	<b>PREPARATION - SELECT:</b>	
52	Select, deselect, reorder and rename fields	
53	Change field type or size	
54	Assign a description	

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56		<b>Theory - Basics of Data Type:</b>
57		String, Numeric, Date/Time, Boolean; Spatial Objects
58		Date format as accepted by Alteryx
59		Impact of Data Types in Alteryx workflows, and the importance of SELECT Tool and Metadata window
60		How is NULL value treated in Alteryx and its impact in various scenarios
61		
62		<b>TRANSFORM - SUMMARIZE:</b>
63		Summarize by grouping, summing, counting, string concatenation
64		
65		<b>PREPARATION - FILTER:</b>
66		Split data in two streams - TRUE & FALSE based on the user defined condition(s)
67		Introduction to Formula Expressions
68		
69		<b>IN/OUT - OUTPUT DATA:</b>
70		Export the output to multiple Excel files (e.g. csv, yxdb) or sheets based on a field's values
71		Related settings - overwrite, append; prefix/suffix
72		
73		<b>PREPARATION - MULTI-ROW FORMULA:</b>
74		Create/Update a single column using an expression that can refer to columns in next and/or prior rows
75		
76		<b>JOIN - UNION</b>
77		Concept: "Stacks" the 2 streams on top of each other ~ Append Query
78		Column Synchronisation: Auto-Config by Name vs Position
79		Column Synchronisation: Manual-Config
80		
81		<b>JOIN - JOIN &amp; UNION</b>
82		Concept: Combine two data streams using common field(s)
83		3 JOIN Types of Alteryx - Left Anti, Inner, Right Anti
84		Importance of JOIN + UNION tool in creating a new join type synthetically - Left Outer
85		
86		<b>Case Study #1 - Multiple tools</b>
87		
88		<b>TRANSFORM - TRANSPOSE</b>
89		Convert Cross-tab data table to a flat file format
90		Similar to Excel Power Query's Unpivot Column
91		
92		<b>TRANSFORM - CROSSTAB</b>
93		Similar to Excel Pivot Table
94		
95		<b>PREPARATION - DATA CLEANSING</b>
96		Replace null values, Remove punctuation
97		Modify capitalization (case change)
98		
99		<b>PARSE - TEXT TO COLUMN</b>
100		Split the text from one field into separate rows (vertical) or columns (horizontal)
101		
102		<b>PREPARATION - FORMULA</b>
103		Create / update columns using one or more expressions to perform calculations and operations
104		Deep-dive in to Formula Expressions
105		
106		<b>Theory - Different methods to convert NULL to non-NULL values</b>
107		
108		<b>PARSE - DATETIME</b>
109		Alteryx uses the ISO format yyyy-mm-dd HH:MM:SS
110		Transform date/time data to and from a variety of formats
111		

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112		<b>Case Study #2 - Multiple tools</b>
113		
114		<b>PREPARATION - MULTI-FIELD FORMULA</b>
115		Similar to the functionality as the FORMULA Tool
116		Advantage: Apply function across multiple fields of data all at once
117		
118		<b>PREPARATION - UNIQUE</b>
119		Splits the data stream in two sets: Unique records based the selected field(s) and Remaining records
120		
121		<b>PREPARATION - SAMPLE:</b>
122		Limits the data stream to a specified number, percentage, or random set of the rows
123		
124		<b>PREPARATION - SELECT RECORDS:</b>
125		Returns records and ranges of records that are specified, including discontinuous ranges of records
126		
127		<b>DEVELOPER - DYNAMIC RENAME:</b>
128		Use with FORMULA tool to get the correct column headers
129		
130	<b>3</b>	<b>DEMO of selected tools (simple and easy) based on time availability:</b>
131		
132		<b>IN/OUT - TEXT INPUT:</b> Manually add data
133		<b>TRANSFORM - COUNT RECORDS</b>
134		<b>PREPARATION - RECORD ID:</b> Create unique identifier or serial no. for each row
135		<b>PREPARATION - SORT</b>
136		<b>PREPARATION - RANDOM % SAMPLE</b>
137		<b>PREPARATION - MULT-FIELD BINNING:</b> Group multiple numeric fields into tiles or bins
138		<b>PREPARATION - Tile group in sets to perform clustering analysis</b>
139		<b>PREPARATION - AUTOFIELD:</b> Automatically set the field type for each string field to the smallest possible size
140		<b>JOIN - JOIN MULTIPLE:</b> Combine multiple inputs based on record position or common fields
141		
142		<b>End</b>