

XML Assignment 3

Building XML Applications with XSLT 2.0

You will need to prepare a document listing several pieces of equipment the company is currently renting out. She wants to generate a report detailing the equipment that has been rented, who is renting it, the estimated date of return of the equipment, and the estimated cost of the rental. To make this report, you will have to work with data stored in several different formats including XML documents and a CSV file. You will need to create an XSLT 2.0 style sheet to generate the result document. A possible solution is shown in the following Figure.

 The Good Earth Quality Landscaping and Construction Equipment Rental					
Current Rentals					
July 17, 2017					
Customer	Tool ID	Tool	Category	Due Back	Charge
Manuel Simmons 272 Wells Street Shreveport, LA 71104	AC295-69	5 CFM AIR COMPRESSOR ELECTRIC	Air Tools	July 19, 2017	\$70
Denna Silva 609 Liano Avenue Baton Rouge, LA 70807	AC354-50	7 CFM AIR COMPRESSOR ELECTRIC	Air Tools	July 18, 2017	\$40
Donald Havens 983 Oconto Boulevard Fort Polk, LA 71459	FL743-64	3000LB ELECTRIC ORDER PICKER	Forklifts	July 18, 2017	\$130
Christopher Mattison 498 North Root Way Scott, LA 70583	PU958-39	3/4" GARDEN HOSE PUMP	Pumps	July 23, 2017	\$132
Juana Mac Morrow 137 Kenton Street Shreveport, LA 71104	CT881-19	PLATE TAMPER REVERSIBLE 900LB 24" WIDE	Compaction	July 19, 2017	\$600

1. Use the *importcsv.xsl* style sheet to transform the CSV *tgerentals.txt* into the XML *tgerentals.xml*.
2. Edit the *tgerental.xsl* to create a style sheet that generates a result document displaying information about rentals from The Good Earth over the last several days. The style and layout of the result document is left up to you, but your style sheet must include the following features:
 - a. Grouping your report by the date using the XSLT 2.0 grouping elements.
 - b. Use of the *current-grouping-key* () to display the value of the current key.
 - c. Data value lookups using the XPath 2.0 doc () function.
 - d. Date formats using the XPath 2.0 picture formats.
 - e. Application of an XML Schema data type to a variable and a function.

- f. A custom function that calculates the date at which each piece of equipment is due to be returned to the company.
 - g. Calculation of the total rental charge equal to the number of weeks in which the equipment is rented at the weekly rate plus the number of days at the daily rate.
3. Augment your completed project with any graphics or CSS styles of your choosing.
 4. Use an XSLT 2.0 processor to generate an HTML file named tgerental.html containing the completed report on rented equipment.
 5. Test your style sheet on your web browser or an XSLT processor, and verify that all required elements are displayed, that the report correctly calculates the total rental see, and that the date the equipment should be returned is displayed.