

Part	Task	Points	Criteria	Excellent	Satisfactory	Inadequate
I	Efficient Node Selection Using Abbreviated XPath Syntax	5	Find all variety elements	Correct query submitted, all variety elements retrieved	Correct query submitted, some variety elements retrieved	Incorrect query or no elements retrieved
	Refining Node Selection: An Introduction to XPath Predicates	5	Find flower names whose origin is Asia	Correct query submitted, all relevant flower names retrieved	Correct query submitted, some relevant flower names retrieved	Incorrect query or no flower names retrieved
	Enhancing Precision: Using Comparison Operators within XPath Predicates	5	Find flower elements whose name starts with L	Correct query submitted, all relevant flower elements retrieved	Correct query submitted, some relevant flower elements retrieved	Incorrect query or no flower elements retrieved
	Order Matters: Selecting Nodes Based on Position in XPath	5	Find flower elements that have more than four variety elements	Correct query submitted, all relevant flower elements retrieved	Correct query submitted, some relevant flower elements retrieved	Incorrect query or no flower elements retrieved
	Understanding Direct Element Constructors in XQuery	5	Construct and display for each flower a new element <flowerInfo> containing the name and origin of each flower	Correct construction and output formatting	Correct construction, some issues in output formatting	Incorrect construction or output formatting
	Using Literal Characters in XQuery Expressions	5	Find the name and color of all flowers	Correct query submitted, all relevant flower names and colors retrieved	Correct query submitted, some relevant flower names and colors retrieved	Incorrect query or no flower names or colors retrieved
	Complex Queries Simplified: Exploring Enclosed Expressions in Xquery	5	Create and display a new flower element for each existing flower, copying the name and the last color elements and adding a new price element	Correct construction and display of new flower elements	Correct construction, some issues in display or incomplete new flower elements	Incorrect construction or display of new flower elements

II	The Power of Comparison and Listing: Data Manipulation Techniques in Xquery	5	Compare by listing the number of flowers with more than four varieties to those with four or fewer varieties	Correct comparison and listing	Correct comparison, some issues in listing	Incorrect comparison or listing	
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	Conversion of XML to CSV using XQuery	5	Write an XQuery script that accurately interprets and translates the structure of the 'Flowers_XML_Data.xml' dataset into a relational format, with the resulting data being saved in a 'Flowers_CSV_Data.csv' file	XQuery script correctly written and fully functional. CSV file perfectly reflects the translated data structure	XQuery script mostly correct and somewhat functional. CSV file reflects the majority of the translated data structure	XQuery script incorrectly written or non-functional. CSV file does not accurately reflect the translated data structure	
	Text Preprocessing of Relational Data	5	Read the relational dataset generated in Part I. Implement three distinct text pre-processing techniques on the 'description' attribute to clean and standardize the data	All three text-preprocessing techniques correctly implemented. 'Description' attribute data is fully cleaned and standardized	One or two text-preprocessing techniques correctly implemented. 'Description' attribute data is partially cleaned and standardized	Text-preprocessing techniques incorrectly implemented or not implemented at all. 'Description' attribute data is not cleaned or standardized	
	Creation and Representation of Term Document Matrix	10	Construct a unigram TermDocumentMatrix (TDM) using the processed data from Part II. Present this TDM in a matrix format and accurately determine and display its dimension	Unigram TDM correctly constructed. Matrix representation is accurate. Dimension is correctly determined and displayed	Unigram TDM mostly correctly constructed. Matrix representation has minor inaccuracies. Dimension is mostly correct	Unigram TDM incorrectly constructed. Matrix representation has major inaccuracies or is absent. Dimension is incorrect or not displayed	
	Cosine Similarity Calculation and Interpretation	10	Apply the cosine similarity function to the vectors obtained from the TDM in Part III. Use the resulting similarity scores to identify the flower most similar to 'Rose'	Cosine similarity function correctly applied to vectors. The flower most similar to 'Rose' is accurately identified	Cosine similarity function mostly correctly applied to vectors. The flower most similar to 'Rose' is identified with minor inaccuracies	Cosine similarity function incorrectly applied or not applied at all. The flower most similar to 'Rose' is incorrectly identified or not identified at all	
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III

Application of Apriori Algorithm

15

With a set minimum support of 65%, correctly apply the Apriori algorithm to the provided dataset

The Apriori algorithm correctly applied. Results accurately reflect patterns in the data that meet the minimum support level

The Apriori algorithm mostly correctly applied. Results reflect most of the patterns in the data that meet the minimum support level

The Apriori algorithm incorrectly applied or not applied at all. Results do not accurately reflect patterns in the data that meet the minimum support level

Identification of Association Rules

15

Generate and list all possible association rules from the dataset that meet or exceed a minimum confidence level of 95%

All association rules that meet the minimum confidence level are correctly identified and listed

Most association rules that meet the minimum confidence level are correctly identified and listed

Association rules are incorrectly identified, not identified at all, or do not meet the minimum confidence level