Rubric for PyCitySchools:

Criteria	Demonstrating Proficiency 4 to 5 points	Approaching Proficiency 3 to 4 points	Developing Proficiency 2 to 3 points	Emerging 1 to 2 points	Incomplete 0 points	Points
Deliverable 1: Collect the Data	The deliverable fulfills the "Approaching Proficiency" criteria AND meets the following: ✓ The first five rows of the DataFrame are displayed. (1 point)	The deliverable fulfills the "Developing Proficiency" criteria AND meets the following: ✓ The path is created by using os.path.join. (1 point) ✓ The data is successfully imported. (1 point)	The deliverable fulfills the "Emerging" criteria AND meets the following: ✓ The path to the CSV is correct. (1 point) ✓ The DataFrame is named student_df. (1 point)	✓ An attempt is made to import the CSV by using the read_csv function. (1 point)		5
	Demonstrating Proficiency 20 to 25 points	**Approaching Proficiency 15 to 20 points**	**Developing Proficiency 10 to 15 points**	**Emerging 1 to 10 points**		
Deliverable 2: Prepare the Data	The deliverable fulfills "Approaching Proficiency" criteria AND meets the following: ✓ The "grade" column is successfully converted to an int type. (5 points)	The deliverable fulfills "Developing Proficiency" criteria AND meets the following: ✓ The column types are displayed. (2 points) ✓ The "th" suffixes are removed from the values in the "grade" column. (3 points)	The deliverable fulfills the "Emerging" criteria AND meets the following: ✓ The rows that contain NaN values are removed. (2 points) ✓ The duplicated rows are removed. (3 points)	✓ The total number of NaN values is calculated and displayed. (5 points) ✓ The total number of duplicated rows is calculated and displayed. (5 points)		25
	Demonstrating Proficiency 15 to 20 points	**Approaching Proficiency 10 to 15 points**	**Developing Proficiency 5 to 10 points**	**Emerging 1 to 5 points**		
Deliverable 3:	The deliverable fulfills the "Approaching Proficiency"	The deliverable fulfills "Developing Proficiency" criteria	The deliverable fulfills the "Emerging" criteria AND meets	✓ The describe function is used. (5 points)		20

Summarize the Data	criteria AND meets the following: ✓ The minimum reading score is calculated and stored in min_reading_score. (5 points)	AND meets the following: ✓ The mean of the math scores is calculated. (2 points) ✓ The mean of the math scores is displayed. (3 points)	the following: ✓ The summary statistics for the DataFrame are displayed. (5 points)			
	Demonstrating Proficiency 20 to 25 points	**Approaching Proficiency 15 to 20 points**	**Developing Proficiency 10 to 15 points**	**Emerging 1 to 10 points**		
Deliverable 4: Drill Down into the Data	The deliverable fulfills the "Approaching Proficiency" criteria AND meets the following: ✓ The average reading score for all the students in Grades 11 and 12 combined is calculated. (5 points)	The deliverable fulfills "Developing Proficiency" criteria AND meets the following: ✓ The reading scores for the 10th graders at Dixon High School are displayed. (5 points)	The deliverable fulfills the "Emerging" criteria AND meets the following: ✓ The summary statistics for the 9th graders are displayed. (3 points) ✓ The row that contains the minimum reading score is displayed. (2 points)	✓ The "grade" column is displayed. (5 points) ✓ The first three rows of columns 3, 4, and 5 are displayed. (5 points)		25
	Demonstrating Proficiency 15 to 20 points	**Approaching Proficiency 10 to 15 points**	**Developing Proficiency 5 to 10 points**	**Emerging 1 to 5 points**		
Deliverable 5: Compare the Data	The deliverable fulfills the "Approaching Proficiency" criteria AND meets the following: ✓ The data is grouped by grade for each school type. (3 points) ✓ The average math score by grade for each school type is displayed. (2 points)	The deliverable fulfills "Developing Proficiency" criteria AND meets the following: ✓ The data is grouped by school name. (3 points) ✓ The number of students per school is displayed in descending order. (2 points)	The deliverable fulfills the "Emerging" criteria AND meets the following: ✓ The average budget for each school type is displayed. (5 points)	✓ The data is grouped by school type. (5 points)		20
	Demonstrating Proficiency 4 to 5 points	**Approaching Proficiency 3 to 4 points**	**Developing Proficiency 2 to 3 points**	**Emerging 1 to 2 points**		
Deliverable 6: Report Findings	The deliverable fulfills the "Approaching Proficiency" criteria AND meets the following:	The deliverable fulfills "Developing Proficiency" criteria AND meets the following: ✓ The written content specifies	The deliverable fulfills the "Emerging" criteria AND meets the following: ✓ The written content makes	✓ The provided cell contains written content. (1 point)		5

	✓ The analysis is coherent and consistent with the performed analysis. (2 points)	areas of the analysis. (1 point)	observations about the data. (1 point)			