

## HW4 Screenshots Submission

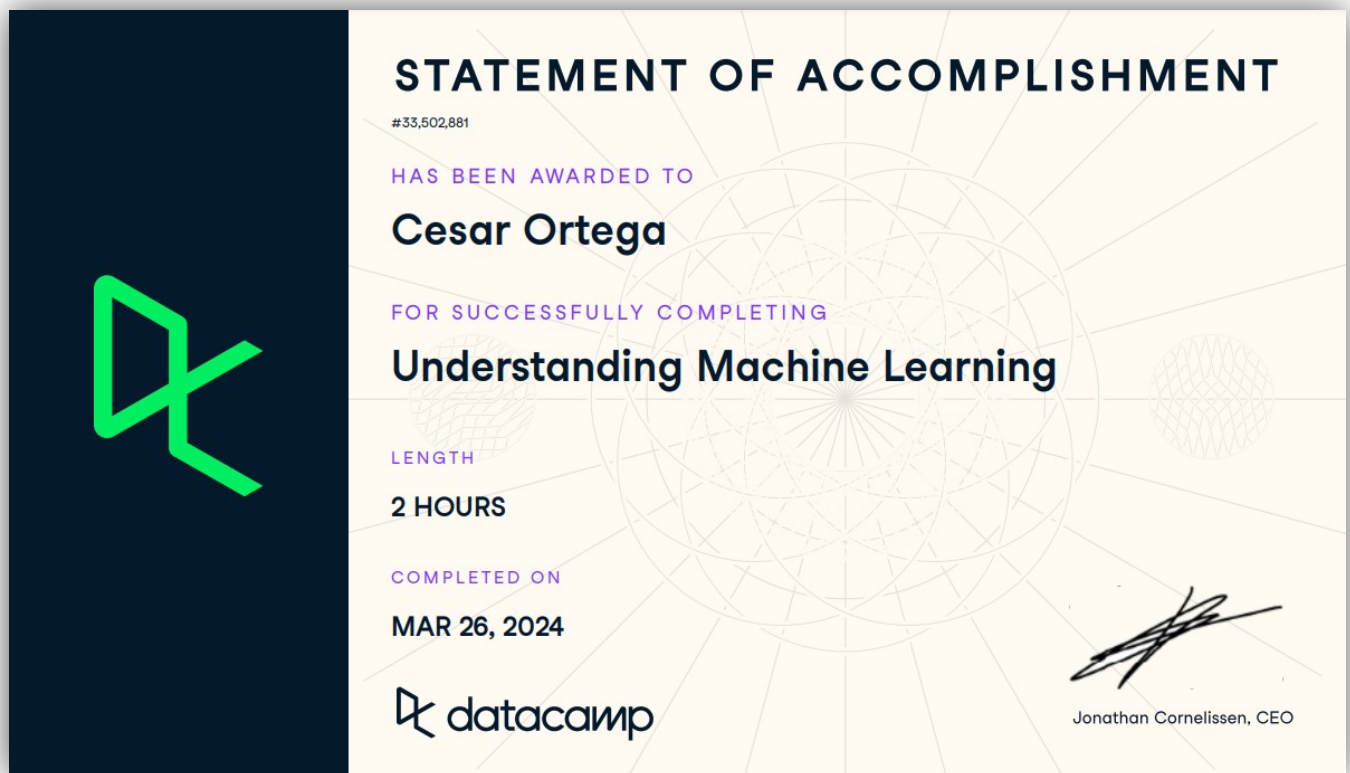
**(30 points in total; Due 11:59 PM Central Time, March 31, 2024)**

Requirements: This homework is open book, open slides, and open notes, but you are not allowed to collaborate nor discuss with anyone else before the due time. Any question about the homework should be addressed to the instructor. You are required to follow the instruction to complete all the questions and screenshots. This is an individual homework assignment, so sharing your RM process, screenshots, or answers with other students or parties is considered as cheating, which will be reported to the university authority. In addition, it is your responsibility to make your answers meet the required format; otherwise, you might lose points because of wrong format. Please read, understand, and comply with these requirements in this homework assignment by typing your name as below.

Your Name (First Last): Cesar Ortega

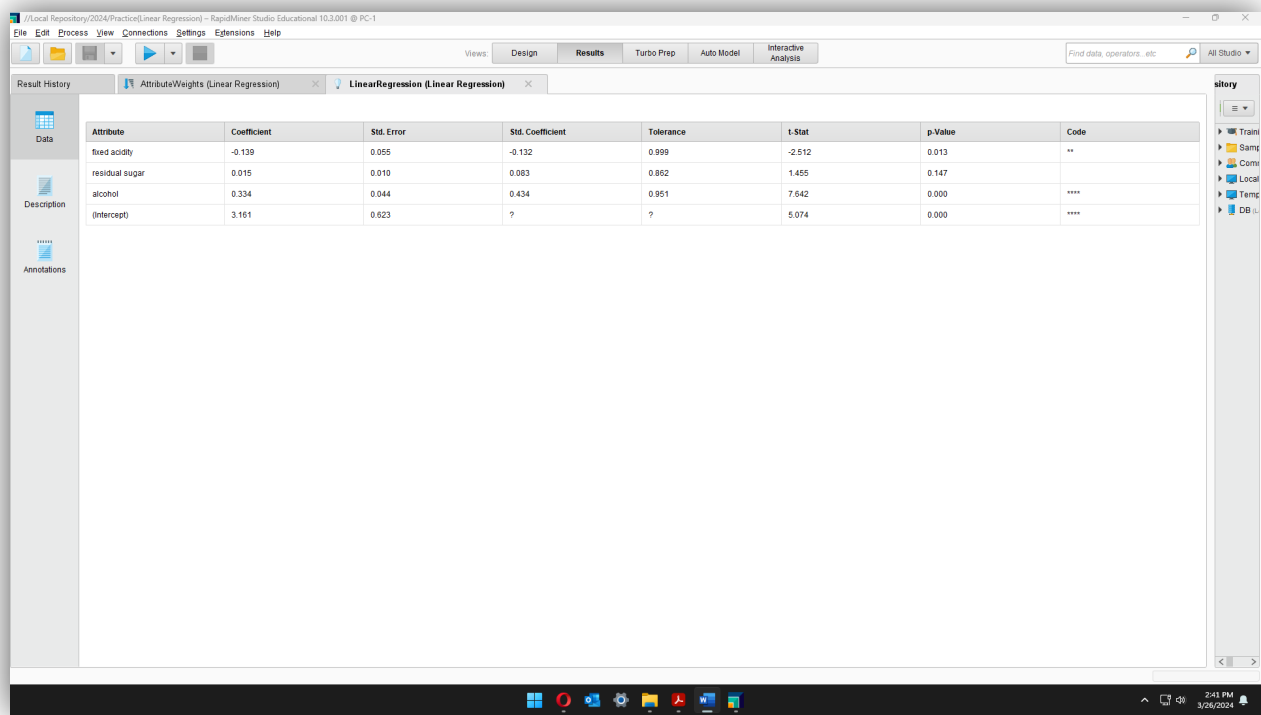
### **Part 1: A Screenshot of Statement of Accomplishment (15 points).**

Your screenshot must meet the three requirements specified in the instruction.



**Part 2: Screenshots (15 points: 3 points for each). A screenshot without date and time will receive a 50% penalty.**

Screenshot 1: Step 3.5 Take a screenshot of your regression model (the one with regression coefficients and p values) with date and time.



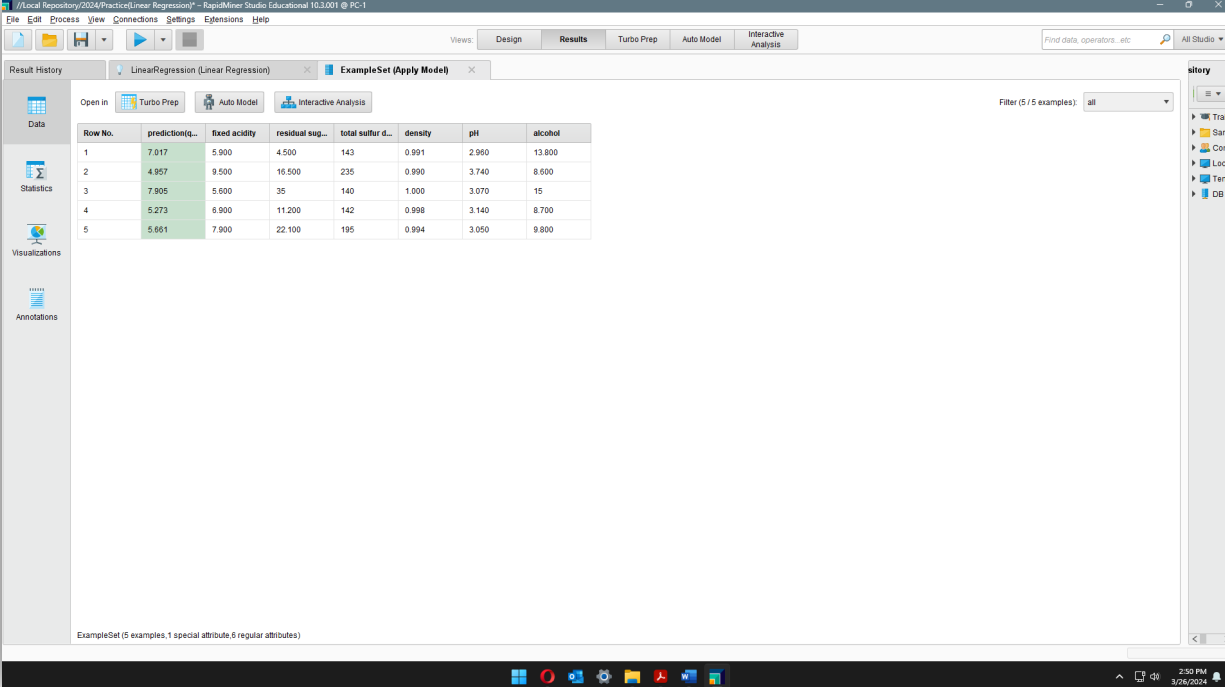
The screenshot shows the 'Results' tab in RapidMiner Studio for a 'LinearRegression (Linear Regression)' model. The table below represents the data shown in the interface.

Attribute	Coefficient	Std. Error	Std. Coefficient	Tolerance	t-Stat	p-Value	Code
fixed acidity	-0.139	0.055	-0.132	0.999	-2.512	0.013	**
residual sugar	0.015	0.010	0.083	0.862	1.455	0.147	
alcohol	0.334	0.044	0.434	0.951	7.642	0.000	****
(Intercept)	3.161	0.623	?	?	5.074	0.000	****

Screenshot 2: Step 4.5 Take a screenshot of your prediction results (the one with

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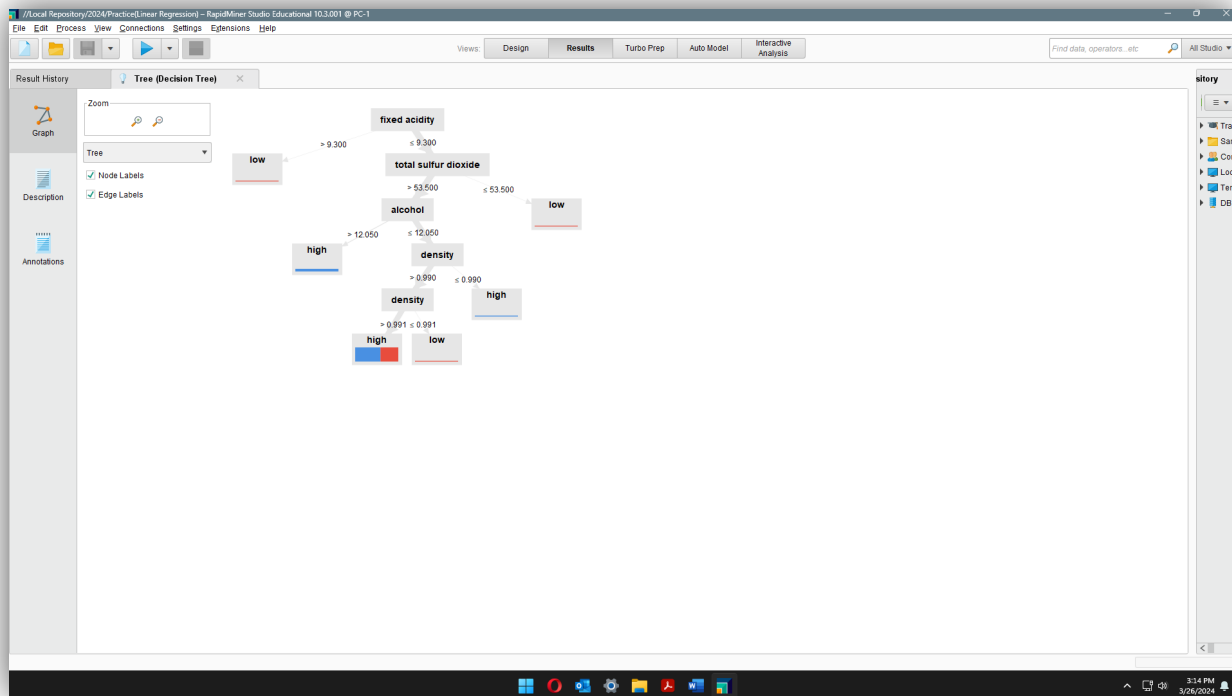
predicted quality of the five new wines) with date and time.



The screenshot shows the RapidMiner Studio interface with a Linear Regression model applied to an ExampleSet. The table displays 5 rows of data with predicted quality values.

Row No.	prediction...	fixed acidity	residual sug...	total sulfur d...	density	pH	alcohol
1	7.017	5.900	4.500	143	0.991	2.960	13.800
2	4.957	9.500	16.500	235	0.990	3.740	8.600
3	7.905	5.600	35	140	1.000	3.070	15
4	5.273	6.900	11.200	142	0.998	3.140	8.700
5	5.661	7.900	22.100	195	0.994	3.050	9.800

Screenshot 3: Step 6.4 Take a screenshot of your decision tree model (the one with a tree graph) with date and time.



Screenshot 4: Step 7.4 Take a screenshot of your prediction results (the one with predicted quality of the five new wines) with date and time.

Result History: Tree (Decision Tree) | ExampleSet (Apply Model (2))

Open in: Turbo Prep | Auto Model | Interactive Analysis

Filter (5 / 5 examples): all

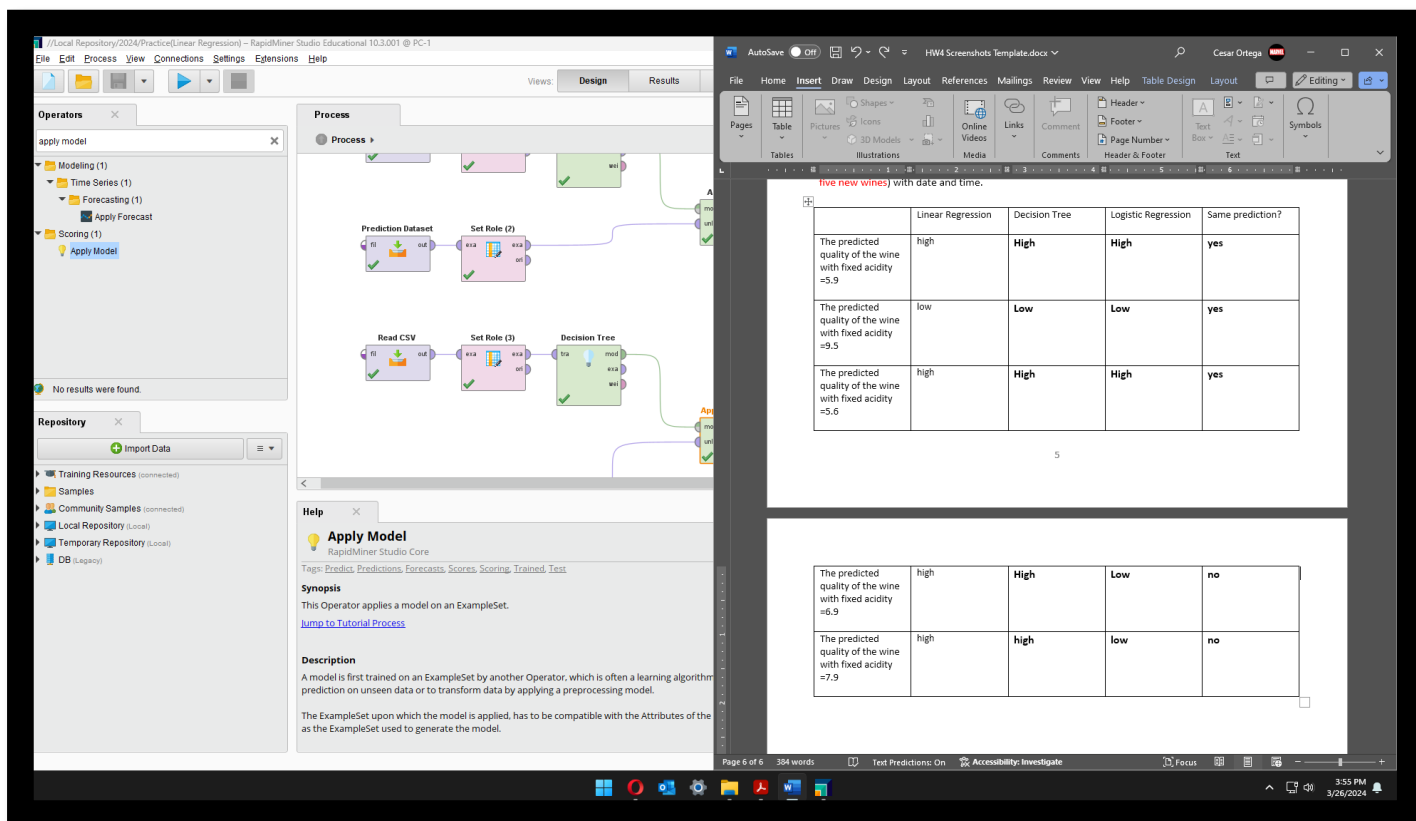
Row No.	prediction(quality)	confidence(high)	confidence(low)	fixed acidity	residual sug...	total sulfur d...	density	pH	alcohol
1	high	1	0	5.900	4.500	143	0.991	2.960	13.800
2	low	0	1	9.500	16.500	235	0.990	3.740	8.600
3	high	1	0	5.600	35	140	1.000	3.070	15
4	high	0.587	0.413	6.900	11.200	142	0.998	3.140	8.700
5	high	0.587	0.413	7.000	22.100	195	0.994	3.050	9.800

ExampleSet (5 examples, 3 special attributes, 6 regular attributes)

Repository: Import Data | Training Resources (connected) | Samples | Community Samples (connected) | Local Repository (local) | Temporary Repository (local) | DB (Legacy)

3:28 PM 3/26/2024

Screenshot 5: Step 9.6 Take a screenshot of your prediction results (the one with predicted quality of the five new wines) with date and time.



	Linear Regression	Decision Tree	Logistic Regression	Same prediction?
The predicted quality of the wine with fixed acidity =5.9	high	<b>High</b>	<b>High</b>	<b>yes</b>
The predicted quality of the wine with fixed acidity =9.5	low	<b>Low</b>	<b>Low</b>	<b>yes</b>
The predicted quality of the wine with fixed acidity =5.6	high	<b>High</b>	<b>High</b>	<b>yes</b>
The predicted quality of the wine with fixed acidity =6.9	high	<b>High</b>	<b>Low</b>	<b>no</b>
The predicted quality of the wine with fixed	high	<b>high</b>	<b>low</b>	<b>no</b>

acidity =7.9				
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