Assignment 3

Due on 2023-01-17 22:09 IST

The data file for submitting this assignment has been provided.

An incorrect answer for one question has not excluded the assignment.

This is the list of exercises for the class. Include the code of students (this data is actually created data for this course and doesn’t seem to have any actual data).


The data consists of students who have taken a learning assessment and the features have been extracted from the data set, indicating the presence of variables.

SID, StudentID, Last Name, First Name, Age, Sex, Education, Grade, Course, Course Credit, Course Credit Hours, Course Credit Hours Type, Course Credit Hours Type Type, University, University Type, University Type Type, Year, Year Type, Exam, Exam Type, Exam Type Type

Use the above features to predict the target variable.

Target: The exam scores of the student will depend on how the student performed before and after giving the exam.

You may submit the dataset from http://www.coursera.org/learn/python-jargon to develop a linear regression model in Orange (3.05.352.054) and then evaluate your model on the following questions. You can also use these for this purpose that was demonstrated in the course.

3. The null value of the model is

4. The precision value of the model is

5. The accuracy of the model is

For the above table calculate Precision Recall:

<table>
<thead>
<tr>
<th>precision</th>
<th>recall</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.8</td>
<td>0.75</td>
</tr>
<tr>
<td>0.85</td>
<td>0.8</td>
</tr>
<tr>
<td>0.9</td>
<td>0.85</td>
</tr>
</tbody>
</table>

For the above table calculate area under curve:

0.85

For the following descriptive datasets, which of the following performance metrics is used generally:

For this question, you are expected to perform the following tasks:

1. Precision
2. Recall
3. F1 Score
4. ROC Analysis

For the following descriptive datasets, which of the following performance metrics is used generally:

1. Precision
2. Recall
3. F1 Score
4. ROC Analysis

Two factors that are important for individuals in an academic context. The following table depicts the observations made by them.

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Seniors</td>
<td>Juniors</td>
<td>Seniors</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>20</td>
<td>10</td>
</tr>
</tbody>
</table>

Calculate the area under curve:

0.85