

Project 167



Coding School



AI and Machine Learning



[Start here](#)

- ❖ In the 167th homework, train a machine learning model using a dataset from the kaggle website and use that model to create a mobile app through the App lab
- ❖ First let's see if there is a dataset related to the Sri Lankan cricket team.
- ❖ First log into your kaggle website account.
- ❖ Now click on the Datasets tab in the side bar.
- ❖ Search as Sri Lanka Match Results.

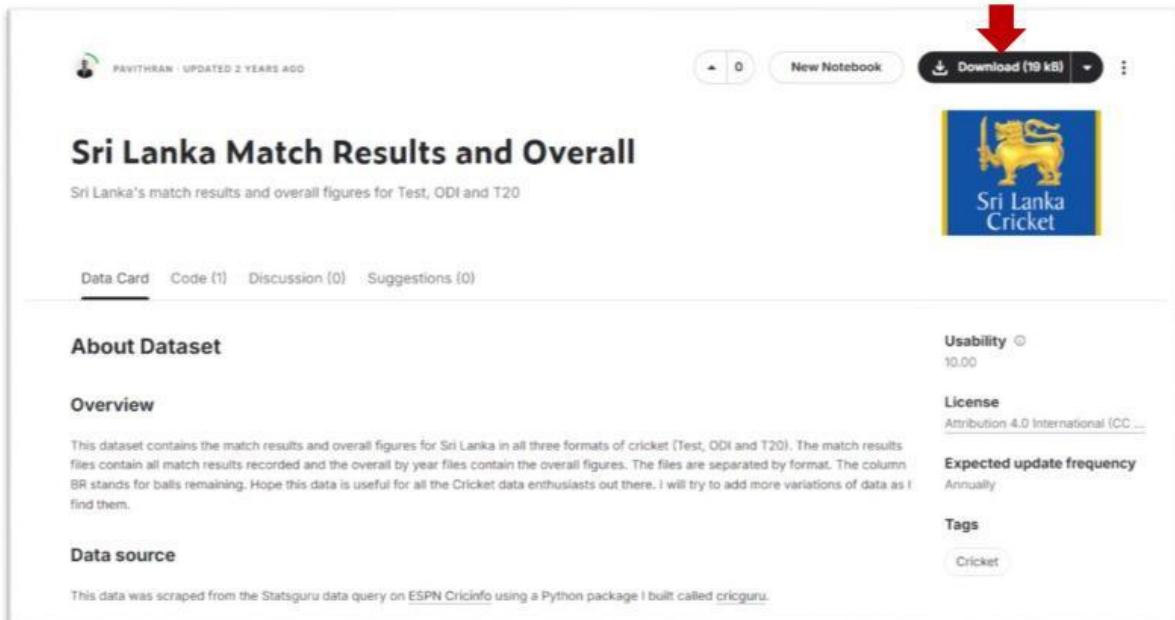
The screenshot shows the Kaggle Datasets interface. The left sidebar has a 'Create' button and links to Home, Competitions, Datasets, Models, Code, Discussions, Learn, and Your Work. The main area is titled 'Datasets' with a search bar containing 'Sri Lanka Match Results'. Below the search bar are filters for All datasets, Computer Science, Education, Classification, Computer Vision, NLP, Data Visualization, and Pre-Trained Model. The results section shows '2 Datasets' with the following details:

- Sri Lanka Match Results and Overall** by Pavithran (2 years ago, Usability 10.0, 6 files, 19 kB)
- ICC Men's T20 World Cup Match Results 2007-present** by Sasyan Kapil (2 years ago, Usability 9.4, 1 file, 3 kB)

- ❖ Now click on the Sri Lanka Match Results and Overall dataset from the received results.

The screenshot shows the details page for the 'Sri Lanka Match Results and Overall' dataset. The dataset is by Pavithran, updated 2 years ago, with a usability rating of 10.0, 6 files, and 19 kB. The page includes a description, a preview section with 1 row, and a download button.

- ❖ Download the dataset.



PAVITHRAN · UPDATED 2 YEARS AGO

New Notebook

Download (19 kB)

Sri Lanka Match Results and Overall

Sri Lanka's match results and overall figures for Test, ODI and T20

Data Card · Code (1) · Discussion (0) · Suggestions (0)

About Dataset

Overview

This dataset contains the match results and overall figures for Sri Lanka in all three formats of cricket (Test, ODI and T20). The match results files contain all match results recorded and the overall by year files contain the overall figures. The files are separated by format. The column BR stands for balls remaining. Hope this data is useful for all the Cricket data enthusiasts out there. I will try to add more variations of data as I find them.

Data source

This data was scraped from the Statsguru data query on [ESPN Cricinfo](#) using a Python package I built called [cricguru](#).

Usability 10.00

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Expected update frequency Annually

Tags Cricket

- ❖ Now extract the downloaded dataset.
- ❖ Let's train a machine learning model using the sl_match_results_odi excel file in that folder.
- ❖ Now click on the start button in the homework and open the AI and machine learning lab.
- ❖ Click on the Upload CSV button and upload the sl_match_results_odi dataset to AI and machine learning lab..

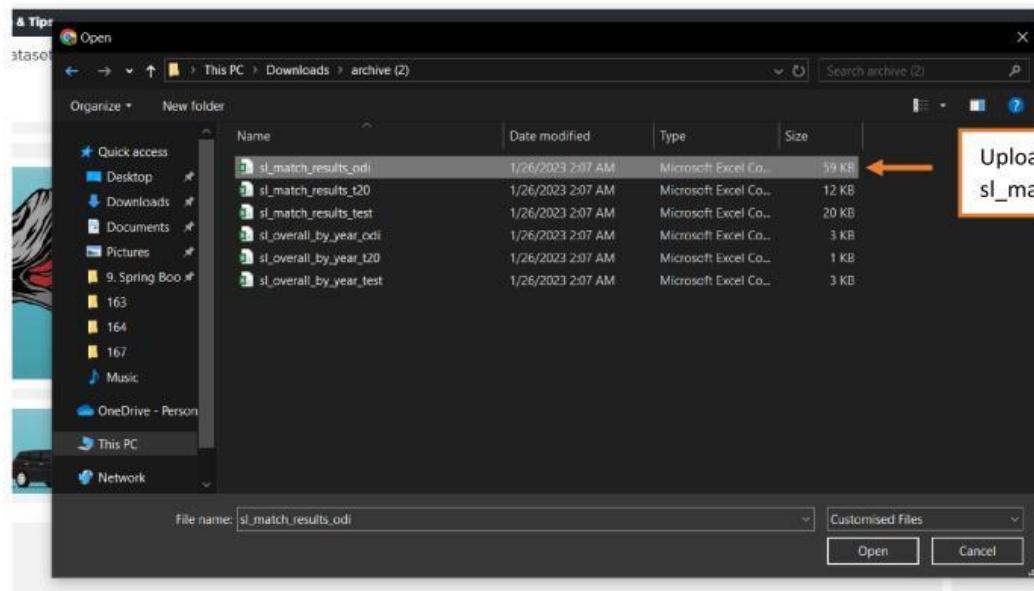
Instructions Help & Tips

Do This: Choose a dataset from below that you would like to investigate

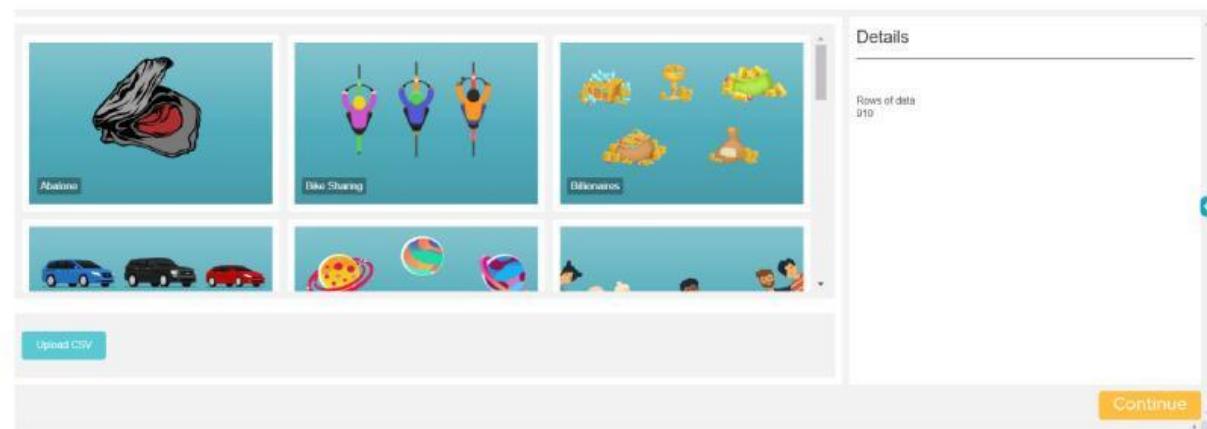


Click on the Upload CSV button.

Upload CSV



- ❖ Click on the Continue button between 910 rows of that data set.



Details

Rows of data 910

Continue

- ❖ Now select the label you want to predict.
- ❖ Here we are predicting the defeat of the Sri Lanka cricket team.
- ❖ Select the result label for that.

Predict **Result** based on **BR, Toss, Bat, Opposition**

Team	Result	Margin	BR	Toss	Bat	Opposition	Ground	Start Date
Sri Lanka	lost	9 wickets	236	lost	1st	v West Indies	Manchester	7-Jun-75
Sri Lanka	lost	52 runs	0	won	2nd	v Australia	The Oval	11-Jun-75
Sri Lanka	lost	192 runs	0	won	2nd	v Pakistan	Nottingham	14-Jun-75
Sri Lanka	lost	9 wickets	74	lost	1st	v New Zealand	Nottingham	9-Jun-79
Sri Lanka	drawn	-	0	-	-	v West Indies	The Oval	13-Jun-79
Sri Lanka	won	47 runs	0	lost	1st	v India	Manchester	16-Jun-79
Sri Lanka	lost	0 runs	0	won	2nd	v England	Colombo (SRC)	13-Feb-82
Sri Lanka	won	3 runs	0	lost	1st	v England	Colombo (SRC)	14-Feb-82
Sri Lanka	lost	8 wickets	22	lost	1st	v Pakistan	Karachi	12-Mar-82
Sri Lanka	won	30 runs	0	won	2nd	v Pakistan	Lahore	29-Mar-82
Sri Lanka	lost	5 wickets	11	lost	1st	v Pakistan	Karachi	31-Mar-82
Sri Lanka	lost	78 runs	0	won	2nd	v India	Amitsar	12-Sep-82
Sri Lanka	lost	6 wickets	55	won	1st	v India	Delhi	15-Sep-82
Sri Lanka	lost	6 wickets	54	won	1st	v India	Bengaluru	26-Sep-82

There are 910 rows of data. (Showing first 100 rows)

Result

Data Type: categorical

Column Information: 6 values were found in this column. A graph is only shown when there are 5 or fewer.

Select label

- ❖ Now click on the continue button.
- ❖ Now select the labels you want to predict.
- ❖ For that select BR, Toss, Bat and opposition teams labels.

Predict **Result** based on **BR, Toss, Bat, Opposition**

Team	Result	Margin	BR	Toss	Bat	Opposition	Ground	Start Date
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There are 910 rows of data. (Showing first 100 rows)

Start Date

Data Type: categorical

Relationship information: The currently selected data is too large to show in a table.

Column Information: 910 values were found in this column. A graph is only shown when there are 5 or fewer.

Note: Categorical columns with more than 50 unique values cannot be selected as the label or a feature.

Back

Train

- ❖ Now click on train

- ❖ Then based on the BR value of the Sri Lankan team and whether the Toss was passed or not and whether the Sri Lankan team bats first or not and what is the opposition team, when this model was trained, a good value of 73.63% accuracy was obtained

Predict **Result** based on **BR**, **Toss**, **Bat**, **Opposition** 73.63%

- ❖ Now this model was trained by killing each label.
- ❖ Then the following type of accuracy is obtained.

Result

Accuracy

Predict **Result** based on **BR**, **Toss**, **Bat**

87.91%

Details

Previous results

Accuracy

Predict **Result** based on **Bat**, **Opposition**, **BR**
 Predict **Result** based on **Toss**, **Bat**, **Opposition**
 Predict **Result** based on **BR**, **Toss**, **Bat**
 Predict **Result** based on **BR**, **Toss**, **Bat**, **Opposition**

81.32%

54.95%

84.62%

73.63%

- ❖ When the model was trained based on whether the Sri Lankan team took the Toss or not and what the opposition team was and based on the BR value, an accuracy of 54.95% was obtained.
- ❖ When this model was trained based on whether the Sri Lankan team is batting first or not and what the opposition team is and based on the BR value, an accuracy of 81.32% was obtained.
- ❖ When this model was trained based on the BR value of the Sri Lankan team and whether the toss was passed or not and whether the Sri Lankan team batted first or not, a good value of 87.91% accuracy was obtained.

- ❖ Among these, let's consider the case where the accuracy is the highest, 87.91%.

Try it out!

BR 125

Toss

won

Bat

1st

Predict



A.I. predicts

Result
lost

- ❖ Let's save the model at that time.
- ❖ Now click on the continue button.
- ❖ Give slCricketModel for the name of the model.

Predict **Result** based on **BR**, **Toss**, **Bat**

Model name (required)
slCreicketModel

Intended Use
Describe the problem you think this model could help solve, or one potential app someone could make with this model.
Write a brief description

Limitations and Warnings
Describe any limitations in how this model was created or how it should be used. You may say things like "Avoid using this model for..." or "Be cautious about..." Important questions to consider are:

- Does the data represent all possible users and scenarios?
- Did you gather enough data to be confident in the model's accuracy?
- Are there situations where this model definitely shouldn't be used?

Write a brief description

Back **Save**

- ❖ Now click on the save button.
- ❖ Then the details of the model we created will be displayed as below.



slCreicketModel

Accuracy
87.91%

Intended Use

Limitations and Warnings

About the Data
Dataset size
910 rows

Features and Label
Predict Result based on BR, Toss, Bat

Label
Result
Possible Values
lost aban won n/r tied canc

Features
BR
Possible Values
min 0
max 274
Toss
Possible Values
lost won -
Bat
Possible Values
1st 2nd -

- ❖ Now click on Finish button.