Linear Regression

Woolworths Sales Data Analysis (Row and Column Indexing)

88%uncompleted

Linear Regression

McDonald’s Product Rating Data Cleaning (Handling Missing Data)

88%uncompleted

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Product Data Integration after Acquisition (Data Integration)

88%uncompleted

Linear Regression

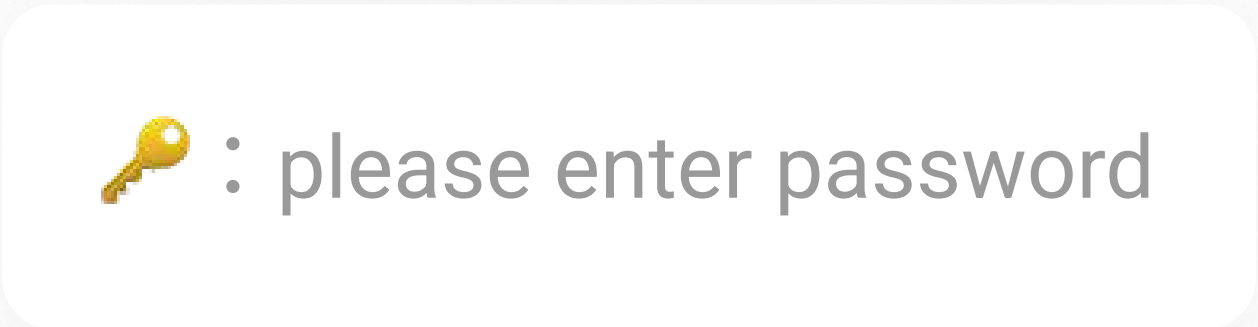
Obesity Survey Data Cleaning (Data Cleaning)

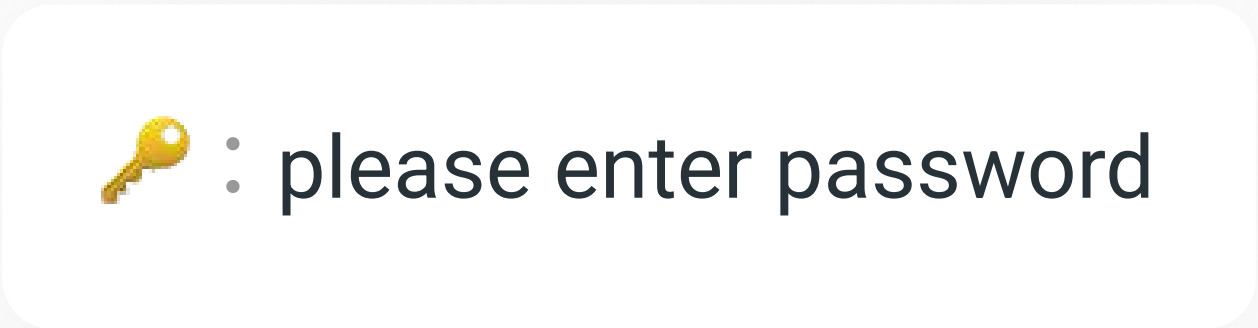
88%uncompleted

Linear Regression

Securities Company Financial Data Analysis (Exploratory Data Analysis - EDA)

88%uncompleted


🔑：please enter password


🔑 : please enter password

oldest

Newest

Parsons Problem - Interactive Coding Challenges

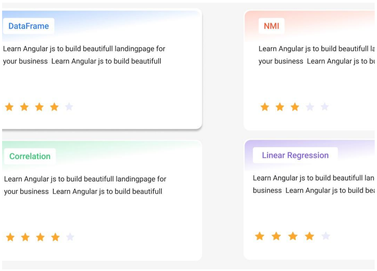
Welcome to CodeCraft, your go-to platform for mastering coding through engaging Parson's Problems! CodeCraft provides a simple and efficient way to practice and enhance your data-processing coding skills by reordering code snippets that are related to data-analysing challenges. Perfectly designed for Unimelb COMP20008 students and coordinators, Code Craft helps you build a strong foundation in coding while tracking your progress every step and every different aspect. Press 'Start' to dive into practicing and craft your path to coding success now!

Start

Learn More

Functions Introduction

- For All Users -

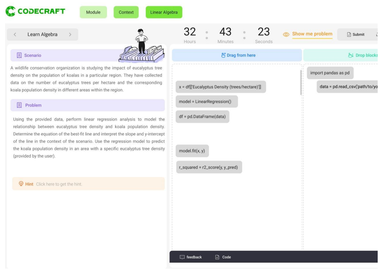


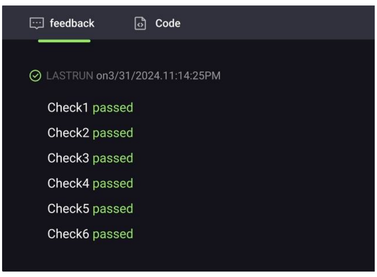
Discover an interesting way to take coding challenges

Choose a data-processing topic that interests you, and unlock a range of exciting, real-world contexts to explore and master!

Concise question page layout

- Drag and drop code snippets to reorder;
- Fold or expand questions; depending on your own favor
- Keep in mind that indentation always matters!



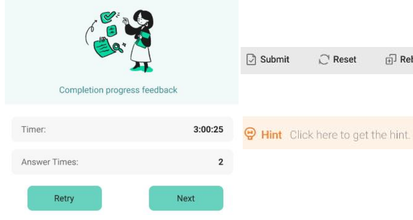


Immidiate IDE look and feedback

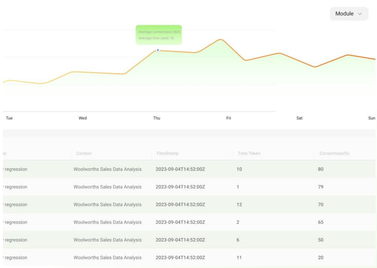
Connected to a Python Integrated Development Environment (IDE), CodeCraft gives you a real-time coding experience just like in a professional IDE. You'll receive instant, IDE-style feedback, helping you quickly spot errors —making it easier to learn and refine your skills as you go!

Powerful tools to improve your experience

- Submit: Click 'Submit' to receive feedback on the question, including duration, number of attempts and IDE-styled feedback.
- Reset: Click "Reset' to regenerate a question of the same topic and context.
- Rebuild: Click 'Rebuild' to revert all changes.
- Hint: Click 'Hint' to receive a clue of the code.



- For Administrator -



Log in to view statistical analysis on students' performance

Follow one-step login by clicking 'Admin Login' and entering password. It will get you into the dashboard containing all meaningful information for analyzing students' performance, including *User ID*, *Topic*, *Context*, *Time Stamp*, *Time Taken* and *Percentage of Correctness*.

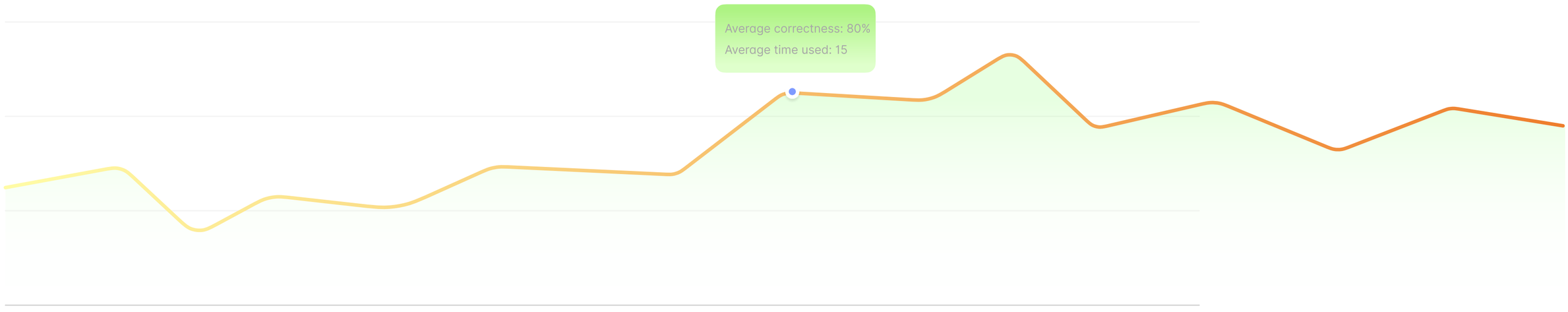
CODECRAFT

Module

Dashboard

Answers in the last seven days

Module



real time data

IP Address	Correctness	Topic	Context	Generate Time	Submit Time	Time Taken
301252325	True	linear regression	Woolworths Sales Data Analysis	2023-09-04T14:52:00Z	2023-09-04T14:52:00Z	00:00:27
321036520	False	linear regression	Woolworths Sales Data Analysis	2023-09-04T14:52:00Z	2023-09-04T14:52:00Z	00:00:27
302458152	True	linear regression	Woolworths Sales Data Analysis	2023-09-04T14:52:00Z	2023-09-04T14:52:00Z	00:00:27
300025412	False	linear regression	Woolworths Sales Data Analysis	2023-09-04T14:52:00Z	2023-09-04T14:52:00Z	00:00:27
365201201	True	linear regression	Woolworths Sales Data Analysis	2023-09-04T14:52:00Z	2023-09-04T14:52:00Z	00:00:27
365201325	False	linear regression	Woolworths Sales Data Analysis	2023-09-04T14:52:00Z	2023-09-04T14:52:00Z	00:00:27

Linear Regression

Linear Regression

Linear Regression

Linear Regression

Linear Regression

IP Address	Correctness	Topic	Context	Generate Time	Submit Time	Time Taken
301252325	True	linear regression	Woolworths Sales Data Analysis	2023-09-04T14:52:00Z	2023-09-04T14:52:00Z	00:00:27
321036520	False	linear regression	Woolworths Sales Data Analysis	2023-09-04T14:52:00Z	2023-09-04T14:52:00Z	00:00:27
302458152	True	linear regression	Woolworths Sales Data Analysis	2023-09-04T14:52:00Z	2023-09-04T14:52:00Z	00:00:27
300025412	False	linear regression	Woolworths Sales Data Analysis	2023-09-04T14:52:00Z	2023-09-04T14:52:00Z	00:00:27
365201201	True	linear regression	Woolworths Sales Data Analysis	2023-09-04T14:52:00Z	2023-09-04T14:52:00Z	00:00:27
365201325	False	linear regression	Woolworths Sales Data Analysis	2023-09-04T14:52:00Z	2023-09-04T14:52:00Z	00:00:27
301252325	True	linear regression	Woolworths Sales Data Analysis	2023-09-04T14:52:00Z	2023-09-04T14:52:00Z	00:00:27
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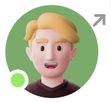
365201201	True	linear regression	Woolworths Sales Data Analysis	2023-09-04T14:52:00Z	2023-09-04T14:52:00Z	00:00:27
365201325	False	linear regression	Woolworths Sales Data Analysis	2023-09-04T14:52:00Z	2023-09-04T14:52:00Z	00:00:27

CODECRAFT

Module

Dashboard



SORT BY

Filter

IP Address	Correctness	Topic	Context	Generate Time	Submit Time	Time Taken
301252325	linear regression	Woolworths Sales Data Analysis	2023-09-04T14:52:00Z	10	80	
321036520	linear regression	Woolworths Sales Data Analysis	2023-09-04T14:52:00Z	1	79	
302458152	linear regression	Woolworths Sales Data Analysis	2023-09-04T14:52:00Z	12	70	
300025412	linear regression	Woolworths Sales Data Analysis	2023-09-04T14:52:00Z	2	65	
365201201	linear regression	Woolworths Sales Data Analysis	2023-09-04T14:52:00Z	6	50	
365201325	linear regression	Woolworths Sales Data Analysis	2023-09-04T14:52:00Z	11	20	

DataFrame

Learn Angular js to build beautifull landingpage for your business Learn Angular js to build beautifull

NMI

Learn Angular js to build beautifull landingpage for your business Learn Angular js to build beautifull

Sentence splitting using nltk

Learn Angular js to build beautifull landingpage for your business Learn Angular js to build beautifull

Correlation

Learn Angular js to build beautifull landingpage for your business Learn Angular js to build beautifull

Linear Regression

Learn Angular js to build beautifull landingpage for your business Learn Angular js to build beautifull

Decision Tree Classifier

Learn Angular js to build beautifull landingpage for your business Learn Angular js to build beautifull

Reading/Writing CSV files

Learn Angular js to build beautifull landingpage for your business Learn Angular js to build beautifull

Linear Regression

Woolworths Sales Data Analysis (Row and Column Indexing)

100%complete

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88%uncompleted

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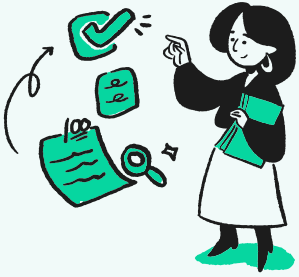

Completion progress feedback

Timer: **3:00:25**

Answer Times: **2**

Retry

Next

double click to indent

DataFrame

Learn Angular js to build beautifull landingpage for your business Learn Angular js to build beautifull

NMI

Learn Angular js to build beautifull landingpage for your business Learn Angular js to build beautifull

Sentence splitting using nltk

Learn Angular js to build beautifull landingpage for your business Learn Angular js to build beautifull

Correlation

Learn Angular js to build beautifull landingpage for your business Learn Angular js to build beautifull

Linear Regression

Learn Angular js to build beautifull landingpage for your business Learn Angular js to build beautifull

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Reading/Writing CSV files

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Obesity Survey Data Cleaning (Data Cleaning)

88%uncompleted

Linear Regression

Securities Company Financial Data Analysis (Exploratory Data Analysis - EDA)

88%uncompleted

Thinking of an interesting problem...

..

Learn Algebra

Submit
Reset
Rebuild

Scenario

A wildlife conservation organization is studying the impact of eucalyptus tree density on the population of koalas in a particular region. They have collected data on the number of eucalyptus trees per hectare and the corresponding koala population density in different areas within the region.

Task

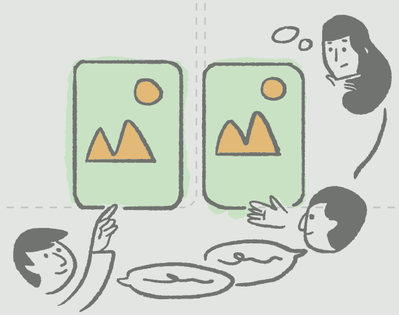
Using the provided data, perform linear regression analysis to model the relationship between eucalyptus tree density and koala population density. Determine the equation of the best-fit line and interpret the slope and y-intercept of the line in the context of the scenario. Use the regression model to predict the koala population density in an area with a specific eucalyptus tree density (provided by the user).

Hint Click here to get the hint.

Drag from here

Drop blocks here

Are you ready to craft code?



start

CODECRAFT

Module | Context | Linear Algebra

Learn Algebra

32 Hours : 43 Minutes : 23 Seconds

Show me problem | Submit | Reset | Rebuild

Drag from here

Drop blocks here

```
import pandas as pd
x = df[['Eucalyptus Density (trees/hectare)']]
model = LinearRegression()
df = pd.DataFrame(data)
data = pd.read_csv('path/to/your/file.csv')
model.fit(x, y)
r_squared = r2_score(y, y_pred)
```

feedback | Code | Run

Drag from here

Drop blocks here

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feedback | Code | Run

CODECRAFT

Module | Context | Linear Algebra

Learn Algebra

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feedback | Code | Run

CODECRAFT

Module | Context | Linear Algebra

Learn Algebra

32 Hours : 43 Minutes : 23 Seconds

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feedback | Code | Run

CODECRAFT

Module | Context | Linear Algebra

Learn Algebra

32 Hours : 43 Minutes : 23 Seconds

Show me problem | Submit | Reset | Rebuild

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Data

```
import pandas as pd
from sklearn.linear _model import LinearRegression
from sklearn.model selection import train test split
from sklearn.metrics import mean squared error

advertising data ={'TV':[230.1,44.5,17.2,151.5,180.8.8.7, 57.5, 120.2, 8.6,214.7],
'Radio': [37.8, 39 3, 45.9, 41.3, 33.2, 48.9, 32.8, 19.6, 2.1.24.0],
'Newspaper': [69.2, 45.1,69.3, 58.5, 66.1,75.0,23.5, 11.6.1.0, 4.0],
'Sales': [22.1, 10.4, 9.3, 18.5, 28.3,7.2,11.8,13.2,4.8.24.4]}
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Hint Click here to get the hint.

Drag from here

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Drop blocks here

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feedback | Code | Run

CODECRAFT

Module | Context | Linear Algebra

Learn Algebra

32 Hours : 43 Minutes : 23 Seconds

Show me problem | Submit | Reset | Rebuild

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Drop blocks here

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feedback | Code | Run

```
import pandas as pd
from sklearn.linear_model import LinearRegression
from sklearn.metrics import mean_squared_error, r2_score
data = {"Sales": [1200, 1500, 1800, 2100, 2400, 2700, 3000, 3300, 3600],
        "Advertising Spend": [100, 150, 200, 250, 300, 350, 400, 450, 500]}
```

CODECRAFT

Module | Context | Linear Algebra

Learn Algebra

32 Hours : 43 Minutes : 23 Seconds

Show me problem | Submit | Reset | Rebuild

Scenario

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```

Drop blocks here

```
import pandas as pd
data = pd.read_csv('path/to/your/file.csv')
```

feedback | Code | Run

LASTRUN on3/31/2024.11:14:25PM

Check1 passed

Check2 passed

Check3 passed

Check4 passed

Check5 passed

Check6 passed

Submit Reset Rebuild

Scenario

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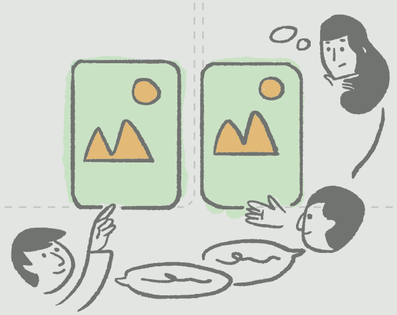
```

Hint Click here to get the hint.

Drag from here

Drop blocks here

Are you ready to craft code?



start

Thinking of an interesting problem...

....

CODECRAFT

Module | Context | Linear Algebra

admin login

Learn Algebra

32 Hours : 43 Minutes : 23 Seconds

Show me problem

Submit | Reset | Rebuild

Drag from here

Drop blocks here

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```

feedback | Code | Run

CODECRAFT

Module | Context | Linear Algebra

admin login

Learn Algebra

32 Hours : 43 Minutes : 23 Seconds

Show me problem

Submit | Reset | Rebuild

🔑 : please enter password

Drag from here

Drop blocks here

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```

feedback | Code | Run

Thinking of an interesting problem...

.....