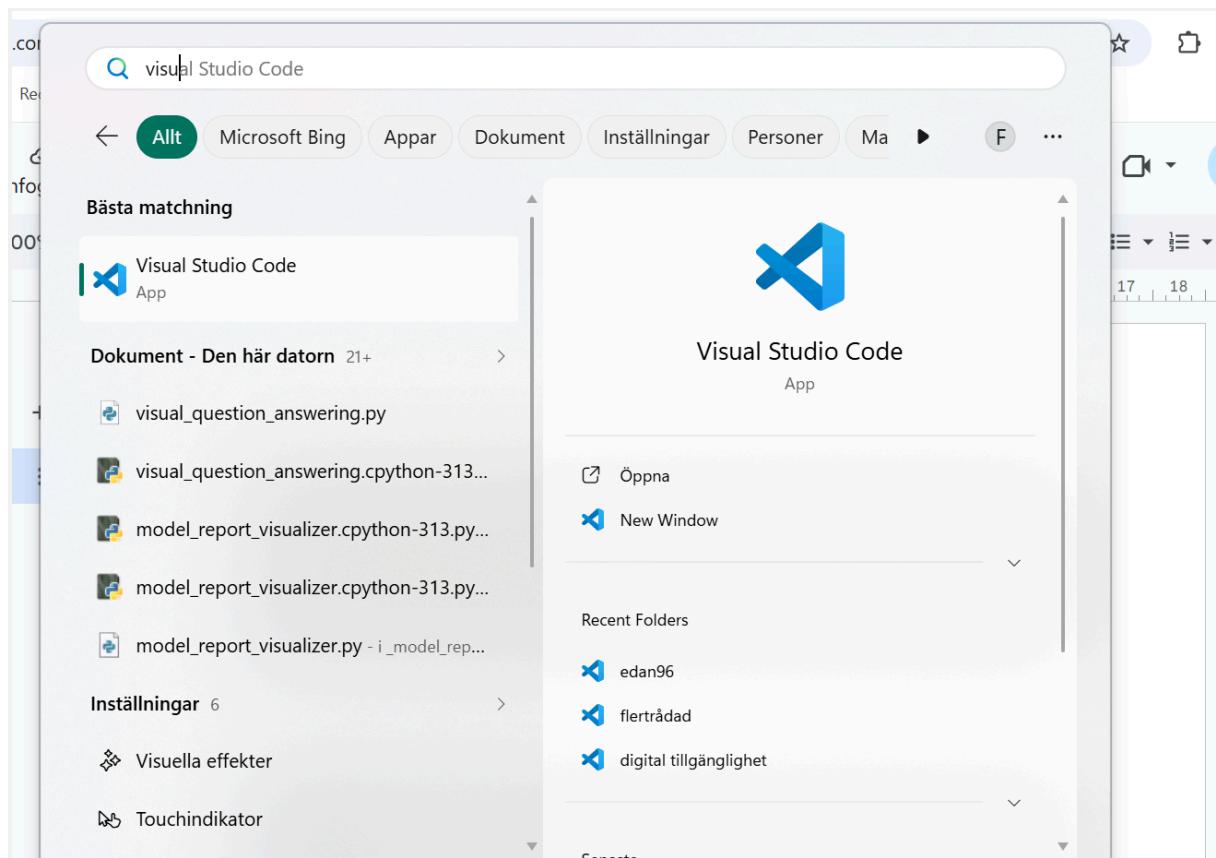


```
Loading personal and system profiles took 3966ms.  
(base) PS C:\Users\Felicia> conda deactivate  
PS C:\Users\Felicia> java -version  
java version "17.0.12" 2024-07-16 LTS  
Java(TM) SE Runtime Environment (build 17.0.12+8-LTS-286)  
Java HotSpot(TM) 64-Bit Server VM (build 17.0.12+8-LTS-286, mixed mode, sharing)  
PS C:\Users\Felicia> mvn -version  
Apache Maven 3.9.12 (848fb4bf2d427b72bdb2471c22fcfd7ebd9a7a1)  
Maven home: C:\Users\Felicia\apache-maven-3.9.12-bin  
Java version: 17.0.12, vendor: Oracle Corporation, runtime: C:\Users\Felicia\jdk-17.0.12-windows-x64_bin\jdk-17.0.12  
Default locale: sv_SE, platform encoding: Cp1252  
OS name: "windows 11", version: "10.0", arch: "amd64", family: "windows"  
PS C:\Users\Felicia>
```

Proof of correctly installed java 17 and maven



The screenshot shows a Jupyter Notebook interface in VS Code. The top tab bar includes File, Edit, Selection, View, etc., and tabs for DT_RF_assignment_Part1.ipynb, exam_2025_pos_ff_embs.ipynb, and exam_2025_reuters.ipynb. The Explorer sidebar on the left lists files like lab1, lab2, and lab3, along with various Python and image files. The main area displays a decision tree diagram and its corresponding Python code.

```

# The visualisation below assumes a regressor called 'regressor3'.
# Change in the code below if your naming above is different

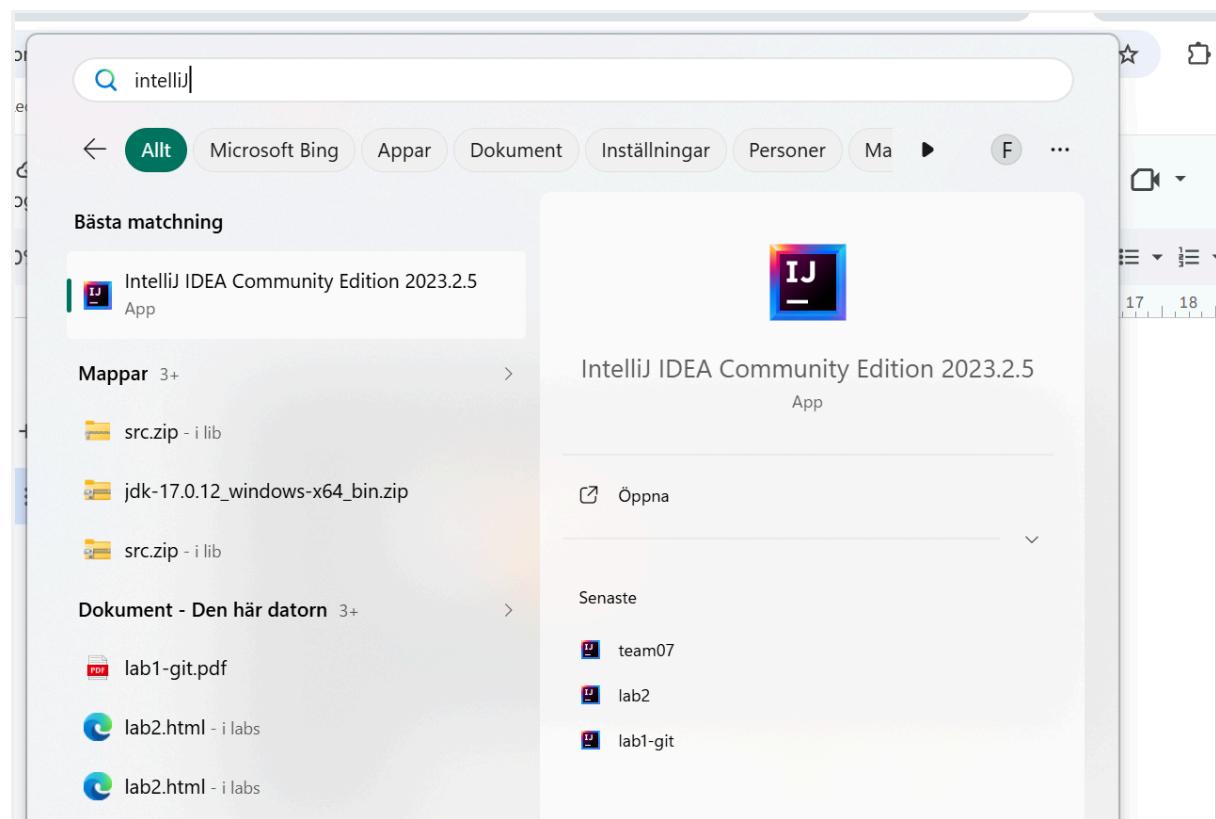
dot_data = tree.export_graphviz(regressor3, feature_names=dataset.feature_names, out_file=None, filled=True, rounded=True, special_characters=True)
graph = graphviz.Source(dot_data, format="png")
graph.render("decision_tree_regressor3")
Image("decision_tree_regressor3.png")

```

The decision tree diagram has the following structure:

- Root node: `MedInc <= 5.029`, `squared_error = 1.331`, `samples = 14447`, `value = 2.068`
 - True branch leads to node: `squared_error = 0.828`, `samples = 11380`, `value = 1.732`
 - False branch leads to node: `squared_error = 1.22`, `samples = 3067`, `value = 3.316`
- Left child of root: `MedInc <= 2.245`, `squared_error = 0.038`, `samples = 1028`, `value = 1.772`
 - True branch leads to leaf: `AveOccup < 2.204`, `squared_error = 0.008`, `samples = 508`, `value = 1.772`
 - False branch leads to leaf: `AveOccup > 2.204`, `squared_error = 0.008`, `samples = 520`, `value = 1.772`
- Right child of root: `MedInc > 5.029`, `squared_error = 1.322`, `samples = 5310`, `value = 3.316`
 - True branch leads to leaf: `HouseAge < 11.5`, `squared_error = 0.002`, `samples = 4902`, `value = 3.316`
 - False branch leads to leaf: `HouseAge > 11.5`, `squared_error = 0.002`, `samples = 418`, `value = 3.316`

Screenshot of VS code. The file that is showing is from a previous course in machine learning



The screenshot shows the IntelliJ IDEA interface. The left sidebar displays the project structure for 'team07' with modules like 'team07', '.gradle', 'admin', 'gradle', 'src', and 'main'. The main editor window shows Java code for 'AdminController.java' (lines 158-171), which includes logic for editing race data and printing contestants. Below the editor is a terminal window titled 'Local (2)' running a Windows PowerShell session. The terminal output shows the PowerShell version, copyright information, and a command prompt indicating the current directory is 'C:\Users\Felicia\team07'. The status bar at the bottom provides build information: 'java > org > example > admin > controller > AdminController > updateAdminView > anonymous ActionListener > actionPerformed'. It also shows the file size as 159:25, encoding as CRLF, and line endings as UTF-8.

```
model.editId( Math.toIntExact(fromServer.get(i).startN) );
System.out.println(model.getContestantByIndex(i) + " " + fromServer.get(i).name);
}
for(Lap l: data.laps()){
    model.registerLap(l);
}
model.sortByStartNbr();
updateTable();
});
```

```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

Loading personal and system profiles took 21133ms.
(base) PS C:\Users\Felicia\team07>
```

Screen shot of IntelliJ. The code is from a previous course.