Apps Script Code Exercises

Enhance Your Google Sheets Skills with Apps Script!



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Enhance Your Google Sheets Skills with Apps Script!

♣ 10 interactive coding exercises to master Google Apps Script, specifically the
Spreadsheet Service (SpreadsheetApp). These exercises range from basic to
advanced levels, ensuring a comprehensive learning journey.

From creating and formatting spreadsheets to automating tasks with triggers, you'll learn it all! Plus, delve into fetching data from external APIs and creating dynamic charts.

Exercise 1: Create a New Spreadsheet

Objective: Learn how to create a new spreadsheet using SpreadsheetApp.

Explanation: This exercise will teach you how to create a new spreadsheet. You'll learn to use the create method of SpreadsheetApp.

Code:

```
function createSpreadsheet() {
  var spreadsheet = SpreadsheetApp.create("New Spreadsheet");
  Logger.log(spreadsheet.getUrl());
}
```

Exercise 2: Write Data to a Spreadsheet

Objective: Learn how to write data to specific cells.

Explanation: This exercise focuses on writing data to a spreadsheet. You'll use methods like getActiveSheet and getRange.

Code:

```
function writeData() {
  var sheet = SpreadsheetApp.getActiveSpreadsheet().getActiveSheet();
  sheet.getRange("A1").setValue("Hello World!");
}
```

Exercise 3: Read Data from a Spreadsheet

Objective: Learn how to read data from a spreadsheet.

Explanation: Here, you'll learn to read data from a cell. This is crucial for processing and analyzing spreadsheet data.

Code:

```
function readData() {
  var sheet = SpreadsheetApp.getActiveSpreadsheet().getActiveSheet();
  var data = sheet.getRange("A1").getValue();
  Logger.log(data);
}
```

Exercise 4: Formatting Cells

Objective: Understand how to format cells in a spreadsheet.

Explanation: This exercise will show you how to change the font size, color, and cell background.

Code:

```
function formatCells() {
  var sheet = SpreadsheetApp.getActiveSpreadsheet().getActiveSheet();
  var range = sheet.getRange("A1:A10");
  range.setFontSize(12);
  range.setBackground("yellow");
  range.setFontColor("red");
}
```

Exercise 5: Adding Multiple Rows of Data

Objective: Learn to add multiple rows of data to a spreadsheet.

Explanation: You'll learn how to use arrays and the setValues method to add multiple rows of data efficiently.

Code:

```
function addMultipleRows() {
  var sheet = SpreadsheetApp.getActiveSpreadsheet().getActiveSheet();
  var values = [["Row 1", 1], ["Row 2", 2], ["Row 3", 3]];
  sheet.getRange("A1:B3").setValues(values);
```

}

Exercise 6: Creating a Custom Function

Objective: Create a custom function in Google Sheets using Apps Script.

Explanation: This teaches you to create a function that can be used directly in your Google Sheets as a formula.

```
Code:
```

```
function doubleNumber(number) {
  return number * 2;
}
// Usage in Google Sheets: =doubleNumber(A1)
```

Exercise 7: Fetching Data from External APIs

Objective: Learn to fetch data from external APIs and populate it in a spreadsheet.

Explanation: This advanced exercise will help you understand how to connect with external data sources.

Code:

```
function fetchData() {
  var response = UrlFetchApp.fetch("https://api.example.com/data");
  var data = JSON.parse(response.getContentText());
```

```
// Process and write data to the sheet
}
```

Exercise 8: Looping Through Rows

Objective: Understand how to loop through rows in a spreadsheet.

Explanation: You'll learn to use loops to process or analyze data in a spreadsheet.

Code:

```
function loopThroughRows() {
  var sheet = SpreadsheetApp.getActiveSpreadsheet().getActiveSheet();
  var data = sheet.getDataRange().getValues();

for (var i = 0; i < data.length; i++) {
  var row = data[i];
  // Process each row
  }
}</pre>
```

Exercise 9: Using Triggers

Objective: Learn to use Apps Script triggers like on Edit.

Explanation: Triggers allow scripts to run automatically. You'll create a simple onEdit trigger.

Code:

```
function onEdit(e) {
  var range = e.range;
  range.setBackground("green");
}
```

Exercise 10: Creating Charts

Objective: Learn to create charts in a spreadsheet using Apps Script.

Explanation: This will teach you to programmatically create charts in your spreadsheet.

Code:

```
function createChart() {
  var sheet = SpreadsheetApp.getActiveSpreadsheet().getActiveSheet();
  var chart = sheet.newChart()
    .setChartType(Charts.ChartType.LINE)
    .addRange(sheet.getRange("A1:B10"))
    .setPosition(4, 8, 0, 0)
    .build();
```

sheet.insertChart(chart);
}