

The image shows a Google Colab notebook interface. The top bar includes the Colab logo, the text "Welcome To Colab", and a warning "Cannot save changes". Below this is a menu bar with "File", "Edit", "View", "Insert", "Runtime", "Tools", and "Help". A toolbar contains "Commands", "+ Code", "+ Text", "Run all", and "Copy to Drive". On the left, a "Table of contents" sidebar lists "Welcome to Colab!", "Getting started", "Data science", "Machine learning", and "More Resources", with a "Featured examples" section and a "+ Section" button. The main area displays a Python script for password validation. The script checks for special characters, weak passwords, and calculates a strength score. The output at the bottom shows the password "JAMESbond123@" being entered, resulting in a score of 6/6 and the classification "Strong password!".

```
# Check for special characters
if re.search(r"[!@#%&*(),.?\"':{}|<>]", password):
    score += 1
else:
    messages.append("Add at least one special character (!@#$.).")

# Check against weak passwords
if password.lower() in weak_passwords:
    messages.append("Password is too common or weak.")
else:
    score += 1

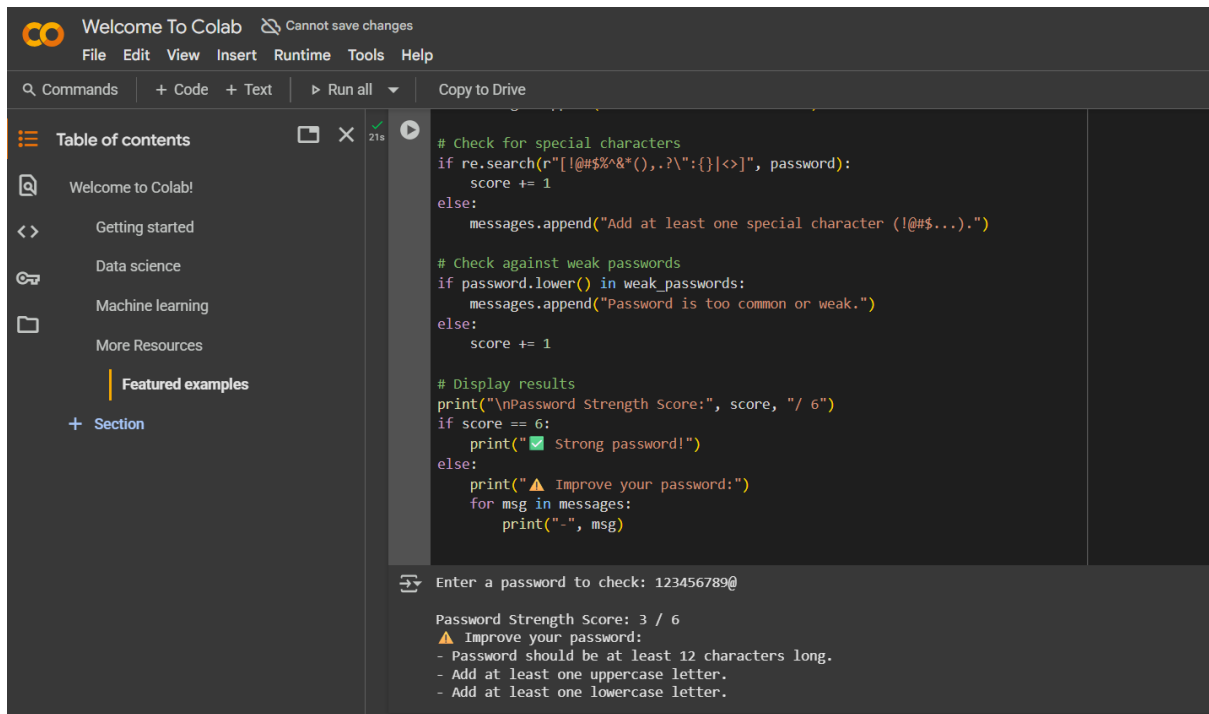
# Display results
print("\nPassword Strength Score:", score, "/ 6")
if score == 6:
    print("✅ Strong password!")
else:
    print("⚠️ Improve your password:")
    for msg in messages:
        print("-", msg)
```

Enter a password to check: JAMESbond123@

Password Strength Score: 6 / 6
✅ Strong password!

- Query successful

The image displays a Python script in a Google Colab notebook, designed to check the strength of a password. The code includes checks for special characters and common, weak passwords. The output at the bottom shows that the password **"JAMESBond123@"** successfully passed all checks, earning a perfect score of 6/6 and the classification "Strong password!".



The image shows a Google Colab notebook interface. The top bar includes the Colab logo, 'Welcome To Colab', and a 'Cannot save changes' warning. Below this is a menu bar with 'File', 'Edit', 'View', 'Insert', 'Runtime', 'Tools', and 'Help'. A toolbar shows 'Commands', '+ Code', '+ Text', 'Run all', and 'Copy to Drive'. On the left, a 'Table of contents' sidebar lists 'Welcome to Colab!', 'Getting started', 'Data science', 'Machine learning', 'More Resources', and 'Featured examples' with a '+ Section' button. The main area contains a Python script for password strength checking. The script checks for special characters, weak passwords, and displays results. The output shows the password '1234567890' being tested, resulting in a score of 3/6 and a list of suggestions for improvement.

```
# Check for special characters
if re.search(r"[!@#$%^&*(),.?\"':{}|<>]", password):
    score += 1
else:
    messages.append("Add at least one special character (!@#$...).")

# Check against weak passwords
if password.lower() in weak_passwords:
    messages.append("Password is too common or weak.")
else:
    score += 1

# Display results
print("\nPassword Strength Score:", score, "/ 6")
if score == 6:
    print("✅ Strong password!")
else:
    print("⚠️ Improve your password:")
    for msg in messages:
        print("-", msg)
```

Enter a password to check: 1234567890

Password Strength Score: 3 / 6

⚠️ Improve your password:

- Password should be at least 12 characters long.
- Add at least one uppercase letter.
- Add at least one lowercase letter.

- Query successful

The image shows a password strength checker script written in Python and executed in a Google Colab notebook. The user input **"1234567890"** is being tested, and the program has identified several weaknesses. The output displays a low score of 3/6 and a list of suggestions for improvement, including needing to be longer, and adding uppercase and lowercase letters.