

# Introduction to Google Apps Script - Gmail Service



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Google Apps Script is a scripting language developed by Google to extend the capabilities of various Google Workspace applications, including Gmail. The Gmail service in Google Apps Script provides a way to automate tasks related to sending and receiving emails through your Gmail account.

## GmailApp Class (Historical)

In the past, the GmailApp class was used for interacting with Gmail. It provided methods to compose and send emails, search for emails, and manage drafts. Here's a brief overview:

### Sending Emails:

1. `createDraft(recipient, subject, body)`: Creates a draft email with the given recipient, subject, and body.
2. `sendEmail(recipient, subject, body)`: Sends an email immediately.

### Accessing Emails:

1. `getInboxThreads()`: Retrieves a collection of threads in the inbox.

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2. `getThreadById(threadId)`: Retrieves a specific thread by its ID.
3. `getInboxThreads(start, max)`: Retrieves a range of threads from the inbox.

## Modifying Emails:

1. `markThreadRead(thread)`: Marks a thread as read.
2. `markThreadUnread(thread)`: Marks a thread as unread.
3. `moveThreadToArchive(thread)`: Moves a thread to the archive.

## Working with Drafts:

1. `getDrafts()`: Retrieves a collection of draft messages.
2. `getDraftById(draftId)`: Retrieves a specific draft by its ID.

Example:

```
function sendEmailExample() {  
  
    var recipient = 'example@email.com';  
  
    var subject = 'Hello from Google Apps Script';  
  
    var body = 'This is a test email sent using Google Apps Script!';
```

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```
GmailApp.sendEmail(recipient, subject, body);  
  
}
```

## Coding Exercises: Gmail Automation with Google Apps Script

### Exercise 1: Send Basic Email

Task: Write a Google Apps Script function to send a simple email.

Steps:

1. Open Google Apps Script.
2. Write a function to send an email.
3. Run the function.

Code Example:

```
function sendBasicEmail() {  
  
    GmailApp.sendEmail('recipient@example.com', 'Subject',  
    'Body');  
  
}
```

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## Exercise 2: Send Email with HTML Body

Task: Modify the previous script to send an email with an HTML body.

Steps:

1. Update the function to use HTML content.
2. Run the function.

Code Example:

```
function sendHtmlEmail() {  
  
    var htmlBody = '<p>This is an <b>HTML</b> email.</p>';  
  
    GmailApp.sendEmail('recipient@example.com', 'HTML Email', '',  
    { htmlBody: htmlBody });  
  
}
```

## Exercise 3: Create Draft Email

Task: Write a script to create a draft email.

Steps:

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1. Write a function to create a draft.
2. Run the function.

Code Example:

```
function createDraftEmail() {  
  
    var draft = GmailApp.createDraft('recipient@example.com',  
    'Draft Subject', 'Draft Body');  
  
    Logger.log('Draft URL: ' + draft.getMessage().getId());  
  
}
```

## **Exercise 4: Access Inbox Threads**

Task: Retrieve and log the first few threads from the inbox.

Steps:

1. Write a function to get inbox threads.
2. Log thread details.
3. Run the function.

Code Example:

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```
function accessInboxThreads() {  
  
    var threads = GmailApp.getInboxThreads(0, 5);  
  
    threads.forEach(function (thread) {  
  
        Logger.log('Thread Subject: ' +  
thread.getFirstMessageSubject());  
  
    });  
  
}
```

## **Exercise 5: Mark Thread as Read**

Task: Write a script to mark the first thread in the inbox as read.

Steps:

1. Write a function to mark a thread as read.
2. Run the function.

Code Example:

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```
function markThreadAsRead() {  
  
    var thread = GmailApp.getInboxThreads(0, 1)[0];  
  
    thread.markRead();  
  
}
```

## **Exercise 6: Move Thread to Archive**

Task: Move the first thread in the inbox to the archive.

Steps:

1. Write a function to move a thread to the archive.
2. Run the function.

Code Example:

```
function moveThreadToArchive() {  
  
    var thread = GmailApp.getInboxThreads(0, 1)[0];  
  
    thread.moveToArchive();  
  
}
```

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## Exercise 7: Access Drafts

Task: Retrieve and log the details of the first few drafts.

Steps:

1. Write a function to get drafts.
2. Log draft details.
3. Run the function.

Code Example:

```
function accessDrafts() {  
  
    var drafts = GmailApp.getDrafts();  
  
    drafts.forEach(function (draft) {  
  
        Logger.log('Draft Subject: ' +  
draft.getMessage().getSubject());  
  
    });  
  
}
```

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## Exercise 8: Access Draft by ID

Task: Retrieve and log details of a specific draft by its ID.

Steps:

1. Write a function to get a draft by ID.
2. Log draft details.
3. Run the function.

Code Example:

```
function accessDraftById() {  
  
    var draftId = '1234567890abcdef'; // Replace with an actual  
    draft ID  
  
    var draft = GmailApp.getDraftById(draftId);  
  
    Logger.log('Draft Subject: ' + draft.getMessage().getSubject());  
  
}
```

## Exercise 9: Mark Draft as Unread

Task: Mark the first draft as unread.

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Steps:

1. Write a function to mark a draft as unread.
2. Run the function.

Code Example:

```
function markDraftAsUnread() {  
  
    var draft = GmailApp.getDrafts()[0];  
  
    draft.markUnread();  
  
}
```

## **Exercise 10: Send Email with Attachment**

Task: Modify the email sending function to include an attachment.

Steps:

1. Update the email sending function to include an attachment.
2. Run the function.

Code Example:

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```
function sendEmailWithAttachment() {  
  
    var file = DriveApp.getFileById('abcdef1234567890'); // Replace  
with an actual file ID  
  
    GmailApp.sendEmail('recipient@example.com', 'Email with  
Attachment', 'Body', { attachments: [file] });  
  
}
```

Note: Replace placeholders like 'recipient@example.com', 'abcdef1234567890', etc., with actual values.

## Quiz Questions on GmailApp Class

### **1. Question: What is the primary purpose of the GmailApp class in Google Apps Script?**

- a. A) Creating spreadsheets
- b. B) Managing Gmail accounts
- c. C) Interacting with Gmail services

### **2. Question: How can you send an email using the GmailApp class?**

- a. A) sendMail()

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- b. B) createEmail()
- c. C) sendEmail()

**3. Question: What is the purpose of the createDraft() method?**

- a. A) Sends an email immediately
- b. B) Creates a draft email
- c. C) Deletes a draft email

**4. Question: How do you retrieve all drafts using the GmailApp class?**

- a. A) getDrafts()
- b. B) retrieveDrafts()
- c. C) listDrafts()

**5. Question: What method is used to access threads in the inbox?**

- a. A) getThreads()
- b. B) inboxThreads()
- c. C) getInboxThreads()

**6. Question: How can you mark a thread as read?**

- a. A) markAsRead()
- b. B) markThreadRead()
- c. C) readThread()

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**7. Question: What does moveToArchive() do in the GmailApp class?**

- a. A) Deletes a thread
- b. B) Moves a thread to the archive
- c. C) Archives a thread

**8. Question: Which method is used to mark a draft as unread?**

- a. A) markAsUnread()
- b. B) markDraftUnread()
- c. C) draftUnread()

**9. Question: How do you retrieve the subject of a draft?**

- a. A) draft.getSubject()
- b. B) getDraftSubject()
- c. C) draft.subject()

**10. Question: What is the purpose of the createDraft() method's return value?**

- a. A) The draft's ID
- b. B) The draft's body
- c. C) The draft's subject

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**11. Question: How do you send an email with an HTML body?**

- a. A) sendHtmlEmail()
- b. B) sendEmailWithHtmlBody()
- c. C) sendEmail() with HTML options

**12. Question: What is the purpose of getThreadById(threadId)?**

- a. A) Retrieves a specific thread by ID
- b. B) Retrieves all threads in the inbox
- c. C) Retrieves the last thread

**13. Question: Which method retrieves the first message subject of a thread?**

- a. A) thread.getFirstMessageSubject()
- b. B) getThreadSubject()
- c. C) firstMessageSubject()

**14. Question: How do you mark a draft as read using its ID?**

- a. A) markDraftRead(draftId)
- b. B) getDraftById(draftId).markRead()
- c. C) readDraft(draftId)

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**15. Question: What method is used to get the recipients of an email?**

- a. A) getEmailRecipients()
- b. B) getRecipients()
- c. C) getToRecipients()

**16. Question: How do you access the body of the last received email?**

- a. A) getLastEmailBody()
- b. B) getLatestEmailBody()
- c. C) GmailApp.getInboxThreads()[0].getMessages()[0].getBody()

**17. Question: What is the purpose of markThreadUnread(thread)?**

- a. A) Marks the thread as unread
- b. B) Retrieves unread threads
- c. C) Unmarks the thread as read

**18. Question: Which method is used to send an email with attachments?**

- a. A) sendEmailWithAttachments()
- b. B) sendEmail() with attachments option
- c. C) createEmailWithAttachments()

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**19. Question: How do you retrieve the subject of the last draft?**

- a. A) getLastDraftSubject()
- b. B) getLatestDraftSubject()
- c. C) GmailApp.getDrafts()[0].getSubject()

**20. Question: What is the purpose of getInboxThreads(start, max)?**

- a. A) Retrieves threads starting from a specific position
- b. B) Retrieves all threads in the inbox
- c. C) Retrieves the last thread

**21. Question: How can you delete a draft using its ID?**

- a. A) deleteDraftById(draftId)
- b. B) getDraftById(draftId).delete()
- c. C) delete(draftId)

**22. Question: Which method is used to mark a thread as unread?**

- a. A) thread.markUnread()
- b. B) markThreadUnread(thread)
- c. C) unreadThread(thread)

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**23. Question: What is the purpose of markDraftUnread()?**

- a. A) Marks the draft as unread
- b. B) Retrieves unread drafts
- c. C) Unmarks the draft as read

**24. Question: How do you get the attachments of a specific email?**

- a. A) getEmailAttachments(email)
- b. B) getAttachments(email)
- c. C) email.getAttachments()

**25. Question: What method is used to access the sender of an email?**

- a. A) getSender()
- b. B) getEmailSender()
- c. C) getFrom()

**26. Question: How do you move the last received email to the trash?**

- a. A) moveToTrash(getLastEmail())
- b. B) GmailApp.getInboxThreads()[0].moveToTrash()
- c. C) moveToTrash(getLastEmailThread())

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**27. Question: What is the purpose of getDrafts()?**

- a. A) Retrieves all drafts
- b. B) Retrieves unread drafts
- c. C) Retrieves the last draft

**28. Question: How can you mark a specific draft as read?**

- a. A) markDraftRead(draft)
- b. B) getDraftById(draftId).markRead()
- c. C) readDraft(draft)

**29. Question: What method is used to access the date of the last sent email?**

- a. A) getLastSentEmailDate()
- b. B) getLatestSentEmailDate()
- c. C) GmailApp.getSentMessages()[0].getDate()

**30. Question: How do you retrieve the plain text body of the last received email?**

- a. A) getLatestEmailPlainTextBody()
- b. B) GmailApp.getInboxThreads()[0].getMessages()[0].getPlainBody()
- c. C) getLastEmail().getPlainTextBody()

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## Answers to Quiz Questions:

1. C) Interacting with Gmail services
2. C) `sendEmail()`
3. B) Creates a draft email
4. A) `getDrafts()`
5. C) `getInboxThreads()`
6. B) `markThreadRead()`
7. B) Moves a thread to the archive
8. A) `markAsUnread()`
9. A) `draft.getSubject()`
10. A) The draft's ID
11. C) `sendEmail()` with HTML options
12. A) Retrieves a specific thread by ID
13. A) `thread.getFirstMessageSubject()`
14. B) `getDraftById(draftId).markRead()`
15. B) `getRecipients()`
16. C)  
`GmailApp.getInboxThreads()[0].getMessages()[0].getBody()`
17. A) Marks the thread as unread
18. B) `sendEmail()` with attachments option
19. C) `GmailApp.getDrafts()[0].getSubject()`

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- 20. A) Retrieves threads starting from a specific position
- 21. B) `getDraftById(draftId).delete()`
- 22. B) `markThreadUnread(thread)`
- 23. A) Marks the draft as unread
- 24. C) `email.getAttachments()`
- 25. C) `getFrom()`
- 26. B) `GmailApp.getInboxThreads()[0].moveToTrash()`
- 27. A) Retrieves all drafts
- 28. A) `markDraftRead(draft)`
- 29. C) `GmailApp.getSentMessages()[0].getDate()`
- 30. B)  
`GmailApp.getInboxThreads()[0].getMessages()[0].getPlainBody()`