

## GWS Apps Script demo scripts

### 1. Appsscript.json

```
{
  "timeZone": "Asia/Taipei",
  "exceptionLogging": "STACKDRIVER",
  "runtimeVersion": "V8",
  "dependencies": {
  "enabledAdvancedServices": [
    {
      "userSymbol": "Calendar",
      "version": "v3",
      "serviceId": "calendar"
    }
  ]
},
  "oauthScopes": [
    "https://www.googleapis.com/auth/calendar.readonly",
    "https://mail.google.com/",
    "https://www.googleapis.com/auth/userinfo.email",
    "https://www.googleapis.com/auth/calendar",
    "https://www.googleapis.com/auth/drive",
    "https://www.googleapis.com/auth/spreadsheets",
    "https://www.googleapis.com/auth/sqlservice",
    "https://www.googleapis.com/auth/script.external_request"
  ],
  "webapp": {
    "executeAs": "USER_DEPLOYING",
    "access": "ANYONE_ANONYMOUS"
  }
}
```

## 2. Gmail

### 2.1 查詢 Gmail

```
function queryGmail() {
  var threads =
  GmailApp.search('from:"welly.zhang@mile.cloud",subject:"DIO"',0,1);
  for(var i =0; i< threads.length; i ++)
  {
    const id = threads[i].getId()
    const name = threads[i].getFirstMessageSubject()
    Logger.log(id);
    Logger.log(name);
  }
}
```

### 2.2 寄信

```
function sendGmail() {
  var now = new Date();
  GmailApp.sendEmail("welly.zhang@mile.cloud",
  "current time",
  "The time is: " + now.toString(),
  {
    name: "Test sender",
    cc: "ipt08110320@gmail.com",
    htmlBody:'<!DOCTYPE html><html lang="en"><meta
    charset="UTF-8"><title>Page Title</title><meta name="viewport"
    content="width=device-width,initial-scale=1"><link rel="stylesheet"
    href=""><style></style><script src=""></script><body><div class="">
    <h1>This is a Heading</h1> <p>This is a paragraph.</p> <p>This is
    another paragraph.</p></div></body></html>'
  }
  );
}
```

## 2.3 撰寫草稿

```
function createDraft() {  
  var now = new Date();  
  GmailApp.createDraft("welly.zhang@mile.cloud",  
    "current time",  
    "The time is: " + now.toString()  
  );  
}
```

# 3. Calendar

## 3.1 查詢 Calendar

```
function getCalendarEvents() {  
  var now = new Date();  
  var twoHoursFromNow = new Date(now.getTime() + (2 * 60 * 60 * 1000));  
  var events = CalendarApp.getDefaultCalendar().getEvents(now,  
    twoHoursFromNow);  
  for(var i = 0; i < events.length; i ++)  
  {  
    const id = events[i].getTitle();  
    Logger.log(id);  
  }  
}
```

## 3.2 建立 Calendar

```
function createCalendarEvent() {  
  var event =  
  CalendarApp.getDefaultCalendar().createEvent('Apollo 11 Landing',  
    new Date('2023-09-08T17:00:00'),
```

```

    new Date('2023-09-08T18:00:00'),
    {
      guests:"welly.zhang@mile.cloud",
      description:"test",
      sendInvites: false,
      location: "TW-Office-33-成田NRT"
    }
  );
  Logger.log('Event ID: ' + event.getId());
}

```

### 3.3 取得全部的 Calendar

```

function getAllCalendar() {
  // Determines how many calendars the user can access.
  var calendars = CalendarApp.getAllCalendars();
  for(var i =0; i< calendars.length; i ++)
  {
    const name = calendars[i].getName();
    Logger.log(name);
  }
}

```

## 4. Drive

### 4.1 取得全部 files

```

function getFiles() {
  // Logs the name of every file in the user's Drive.
  var files = DriveApp.getFiles();
  while (files.hasNext()) {
    var file = files.next();
    console.log(file.getName());
  }
}

```

## 4.2 移除 untitled files

```
function removeUntitledFiles() {
  // Trash every untitled spreadsheet that hasn't been updated in a
  week.
  const currentUser = Session.getActiveUser().getEmail();
  var files = DriveApp.getFilesByName('Untitled document');
  while (files.hasNext()) {
    var file = files.next();
    const isOwner = currentUser == file.getOwner().getEmail() ? true :
    false
    if (isOwner) {
      console.log(file.getOwner().getEmail());
      file.setTrashed(true);
    }
  }
}
```

## 4.3 新建立 Folder 並給予權限 (請記住 Drive ID)

```
function createAndGrantPermissionFolder() {
  const folders = DriveApp.getFoldersByName("test_folder")
  if(folders.hasNext() == false)
  {
    const folder = DriveApp.createFolder("test_folder");
    console.log(folder.getId());
    console.log(folder.getOwner().getEmail());
    const grantPermission = folder.addViewer("ipt08110320@gmail.com")
  }
}
```

#### 4.4 搬遷檔案於資料夾中

```
function addFileIntoFolder() {
  const createdFile = DriveApp.getRootFolder().createFile('New-Text
  File.txt', 'Hello, world!');
  const folder = DriveApp.getFolderById("請填剛建立的 Drive ID")
  createdFile.moveTo(folder)
}
```

#### 4.5 取得資料夾 Parents 節點

```
function getParentsPath() {
  const folder = DriveApp.getFolderById("請填剛建立的 Drive ID")
  const parents = folder.getParents()
  while(parents.hasNext()){
    const fol = parents.next();
    console.log(fol.getName())
    console.log(fol.getOwner().getEmail())
  }
}
```

## 5. Sheet

### 5.1 取得 Spreadsheet 中有哪些 Sheets

```
function checkoutSheets() {
  const spreadsheet = SpreadsheetApp
  .openByUrl('https://docs.google.com/spreadsheets/d/1TF0QAZYCdRsAjnNYY
  6nRzKpi5siFU-AS-ziItUkOSTk/edit#gid=0')

  var sheets = spreadsheet.getSheets();
  for (let i =0 ; i< sheets.length; i++){
    console.log(sheets[i].getName());
  }
}
```

## 5.2 取得 SpreadSheet 中目前 Active 的 Sheet

```
function getGoogleSheetName() {  
  const name = SpreadsheetApp  
    .openByUrl('https://docs.google.com/spreadsheets/d/1TF0QAZYCdRsAjnNYY  
6nRzKpi5siFU-AS-ziItUk0STk/edit#gid=0')  
    .getActiveSheet().getName()  
  console.log(name)  
}
```

## 5.3 取得 SpreadSheet 中的資料

```
function getGoogleSheetData() {  
  const data = SpreadsheetApp  
    .openByUrl('https://docs.google.com/spreadsheets/d/1TF0QAZYCdRsAjnNYY  
6nRzKpi5siFU-AS-ziItUk0STk/edit#gid=0')  
    .getActiveSheet()  
    .getDataRange()  
    .getValues();  
  console.log(data);  
  return data  
}
```

# 6. Properties

## 6.1 練習抓取 Properties

```
//doc:  
https://developers.google.com/apps-script/guides/properties?hl=en  
function tryProperties() {  
  try {  
    // Set a property in each of the three property stores.  
    const scriptProperties = PropertiesService.getScriptProperties();  
    const userProperties = PropertiesService.getUserProperties();
```

```
scriptProperties.setProperty('SERVER_URL',  
'http://www.example.com/');  
userProperties.setProperty('DISPLAY_UNITS', 'metric');  
scriptProperties.setProperties({  
'cow': 'moo',  
'sheep': 'baa',  
'chicken': 'cluck'  
});  
console.log(scriptProperties.getKeys())  
console.log(userProperties.getKeys())  
  
} catch (err) {  
// TODO (developer) - Handle exception  
console.log('Failed with error %s', err.message);  
}  
}
```

## 7. Static Website

### 7.1 Apps Script 檔案 (檔名需與 HTML 檔案一致)

```
function doGet() {  
return HtmlService  
.createTemplateFromFile('demo')  
.evaluate();  
}
```

### 7.2 HTML 檔案

```
<!DOCTYPE html>  
<html>  
<head>  
<base target="_top">  
</head>
```



```
<body>  
<p> Hello World! </p>  
</body>  
</html>
```