**G Suite Overview**

**ACCOUNT SETUP**

## **Introduction to Account and Domain Setup**

****Introduction****

In this lesson, you will go through a series of exercises to set up your G Suite domain, create a new account, sign in to your admin console for the first time, and customize your company’s profile.

****Domain considerations****

When you create a G Suite account you associate it with a primary domain which is registered with a domain registrar such as Enom or GoDaddy.

During the G Suite sign up flow you can choose to purchase a domain or use an existing domain that you own. The exercise that follows takes you through purchasing a domain during sign up. This ensures that your domain ownership is verified immediately and that your Domain Name System (DNS) records are configured correctly for use with G Suite.

If you prefer to use an existing domain you can do so but you should consider the following:

* You must verify domain ownership manually. This process will vary depending upon your domain registrar.
* Domain verification typically takes less than 1 hour although it can take longer which may delay your progress through the course.
* You must manually update your DNS records to work with G Suite.
* This training does not cover configuring G Suite with an existing domain as steps vary depending upon your registrar. You should use the Help Center resources below to complete the setup process.

****Help Center resources****

If you are bringing your own domain, you should read:

* [Verify your domain for G Suite](https://support.google.com/a/answer/60216" \o "Verify your domain for G Suite" \t "/home/sherwinowen/Documents\\x/_blank)
* [Set up MX records for G Suite Gmail](https://support.google.com/a/answer/140034" \o "Set up MX records for G Suite Gmail" \t "/home/sherwinowen/Documents\\x/_blank)
* [Authorize email senders with SPF](https://support.google.com/a/answer/33786" \o "Authorize email senders with SPF" \t "/home/sherwinowen/Documents\\x/_blank)

Remember to use the Help Center links when they are provided. The Help Center is what we consider our single source of truth!

## Exercise #1 - Create your G Suite Trial Account

****Introduction****

In this exercise, you'll purchase a new domain name through Google and register that domain for a 14-day trial of G Suite. Follow the directions carefully!

****Notes****

1. You will need to enter your payment information and you will be charged for the cost of your domain. You will not be charged for your G Suite account as long as you remember to cancel your subscription before the end of the trial period. This is very IMPORTANT to avoid any unwanted charges! For instructions on how to cancel your trial, see [About your free G Suite trial](https://support.google.com/a/answer/6388094" \o "About your free G Suite trial" \t "/home/sherwinowen/Documents\\x/_blank).
2. You can choose any name for your domain as long as it is available. However, if you're planning to keep the domain after the course has finished, choose your domain name wisely as you can't change it later. The domain name you sign up with will be your primary domain.
3. If you prefer to use an existing domain, complete the Steps 1 - 5 only and choose I have a domain when asked if you have a domain. This will take you through a different path to complete your setup. Help Center resources are provided at the bottom of the page to guide you through the additional steps you will need to take if you are using an existing domain.

****Directions****

Complete the steps below. Ensure that you follow the embedded links in order to get the best experience in your hands-on training!

1. Open an incognito web browser window and go to the [G Suite pricing page](https://gsuite.google.com/pricing.html" \t "/home/sherwinowen/Documents\\x/_blank). 

2. The default G Suite trial edition is G Suite Business but for this training you will require a trial version of G Suite Enterprise so click the ****START FREE TRIAL**** box in the 'G Suite Enterprise' column. This will take you to the first screen in the sign-up process.

3. Enter the following information:

* Business or organization name
* Enter the number of employees or members of your organization - for this training you can choose: Just You.
* Country

4. Click ****NEXT**** and at the next screen, enter the following information:

* Your first and last names
* A current email address

5. Click ****NEXT****. This takes you to the screen where you choose what domain you will associate with your new G Suite account. For this training, you are allowing Google to provision a new domain for you so click ****I'd like to buy a domain****. If you prefer to use an existing domain, choose I have a domain.

6. Click ****NEXT**** and enter your desired domain name. Google will now check to see if that domain is already registered. If it is, you can choose from a list of similar domain names or enter another name.

7. Click ****NEXT**** once Google has determined that your chosen domain name is available.

8. Enter your business address details and click ****NEXT****.

9. Here you can choose whether you want to receive occasional emails from Google. For this training, just click ****NO, THANKS****.

10. You must now create your G Suite super administrator account. Enter an email address, e.g. admin@yourdomain and a password, and tick the ****I’m not a robot**** box.

11. Click ****AGREE AND CONTINUE****. In a few moments you will be redirected to a login page where you can now sign into your new G Suite account.

12. Verify that the email address you entered in Step 10 appears in the 'Email or phone box' field and click ****Next****. Then enter the password you specified in Step 10.

****Note****: At this point, you may be asked to verify your identity using a code which will be sent to your phone. If you are prompted, follow the instructions on the screen to obtain your verification code and enter it to continue. Your code will be in the format G-123456. You only need to enter the numeric part of the code into the verification screen.

13. You should now have arrived at the 'New account' screen. Click ****Accept**** to accept Google’s terms and conditions.

14. You are now asked to review/select your preferred payment plan. For this training, ensure you are on the ****Flexible plan**** and click ****NEXT****.

15. You are nearly done. You should now review the information presented. You will need to enter your credit card details before you can complete the setup. Once you are satisfied that the information is correct, click ****NEXT****.

16. The next screen will indicate that a G Suite account has been created. From here, click ****CONTINUE TO ADMIN CONSOLE****.

****Notes****

1. You will receive three email notifications to let you know that your G Suite account is ready, billing has been set up and your domain purchase is verified. It can take 30 minutes or longer to receive these messages and for all the services to be available.
2. You may also receive an email from your domain registrar asking you to verify your email address. If you do receive a verification email, follow the instructions provided to verify your address

****Help Center resources****

If you are bringing your own domain, you should read:

* [Verify your domain for G Suite](https://support.google.com/a/answer/60216" \o "Verify your domain for G Suite" \t "/home/sherwinowen/Documents\\x/_blank)
* [Set up MX records for G Suite Gmail](https://support.google.com/a/answer/140034" \o "Set up MX records for G Suite Gmail" \t "/home/sherwinowen/Documents\\x/_blank)
* [Authorize email senders with SPF](https://support.google.com/a/answer/33786" \o "Authorize email senders with SPF" \t "/home/sherwinowen/Documents\\x/_blank)

## **Exercise #2 - Log in to the G Suite Admin Console**

****Introduction****

As the G Suite administrator, you use the admin console to activate services, add users, configure features, and much more. The last step in Exercise #1 will have taken you into your admin console. If you have logged out, complete the following exercise to log back in.

****Directions****

1. Open a web browser window and go to [admin.google.com](https://admin.google.com/" \t "/home/sherwinowen/Documents\\x/_blank).

2. Enter your G Suite administrator account email address and click ****Next****.

3. Enter your administrator password and click ****Next****. The admin console displays.

****Notes****

1. You will normally sign into the admin console from [admin.google.com](https://admin.google.com/" \t "/home/sherwinowen/Documents\\x/_blank). However, if you're already signed in to another G Suite service you can also access the admin console by clicking the Admin icon that can be found in the Apps Launcher.
2. If you have problems signing in, see the following article: [Can't sign in to the Admin console](https://support.google.com/a/answer/6335621" \o "Can't sign in to the Admin console" \t "/home/sherwinowen/Documents\\x/_blank).
3. Only a user with administrator privileges can access the admin console. As the domain administrator, you can grant administrator privileges to any of your users. We will discuss this later in the course.

## **Exercise #3 - Review your Domain Name System (DNS) Records**

****Introduction****

Before you can use any G Suite service, you must associate a verified domain with the G Suite account. Domain information is managed via a Domain registrar (hosting service) that stores Domain Name System (DNS) records for the domain. These records allow organizations to connect to online services like email or websites.

In this exercise, you will sign into your domain's registrar from the admin console. This can only be done if you purchased your domain as part of the G Suite sign up process. If you did not, you must sign in separately to review and update your records. See the Help Center resources at the end of this exercise for more details.

For domains purchased as part of the sign up process, Google also verifies the domain and configures essential DNS records to connect the domain to Google's servers.

****Directions****

Each registrar has their own console. The instructions below assume your domain is hosted by Google Domains.

1. If you are not already signed in, sign in to your domain as the administrator at [admin.google.com](https://admin.google.com/" \t "/home/sherwinowen/Documents\\x/_blank).

2. Click the ****Domains**** icon.

3. Click the ****Manage Domains**** icon.

4. Click the****View Details**** link for your primary domain. Your domain details will appear on the right hand side of the screen.

5. If you purchased your domain from Google Domains, click ****MANAGE DOMAIN****. This will load the Google Domains console. You should not be required to sign into this console.

If your domain was purchased from another registrar during the G Suite sign up process, look for and expand the ****Advanced DNS Settings**** section. Expand this section and use the credentials presented to sign into your DNS console.

6. From the Google Domains page, select ****DNS**** from the left hand menu, then scroll down to the 'Synthetic records' card and click****>**** to expand the G Suite section. If you are using another registrar the navigation will be different. Refer to your provider's help to locate your DNS records.

You will see a number of records already populated for you. These include:

* Mail Exchanger (MX) records (ensures mail is routed to Google's servers)
* A Sender Policy Framework (SPF) TXT record (this allows receiving mail servers to verify that the sending servers are authorized to send mail on your domain’s behalf)

Examples of these are below. Check that they exist in your DNS records

| **Host name** | **Address** | **Record type** |
| --- | --- | --- |
| @ | v=spf1 include:\_spf.google.com ?all | TXT |

| **Host name** | **Record type** | **Address** | **Priority** |
| --- | --- | --- | --- |
| @ (none) | MX | aspmx.l.google.com. | 1 |
| @ (none) | MX | alt1.aspmx.l.google.com. | 5 |
| @ (none) | MX | alt2.aspmx.l.google.com. | 10 |

****Notes:****

1. The column names may vary from those above depending upon the registrar you chose when you signed up for the G Suite trial.

2. There are typically 5 MX records. We have just shown the first three here to keep things simple.

****Existing domain considerations****

Where you want to use an existing domain with a G Suite account you will need to verify the domain using one of the options allowed by Google. For more information please see [Sign up for G Suite](https://support.google.com/a/answer/53926" \t "/home/sherwinowen/Documents\\x/_blank) and [Verify your domain for G Suite](https://support.google.com/a/answer/60216" \t "/home/sherwinowen/Documents\\x/_blank).

in addition to verifying your domain, if you are using Gmail you will need to update your Mail Exchanger (MX) records to direct mail to the Google servers. For more information see [Set up MX records for G Suite Gmail](https://support.google.com/a/answer/140034" \t "/home/sherwinowen/Documents\\x/_blank).

It is recommended that you add an SPF record for your domain. If you do not set up SPF, some messages may bounce or be marked as spam. To learn more, see [Authorize email senders with SPF](https://support.google.com/a/answer/33786" \t "/home/sherwinowen/Documents\\x/_blank).

## **Exercise #4 - Navigating the Admin Console**

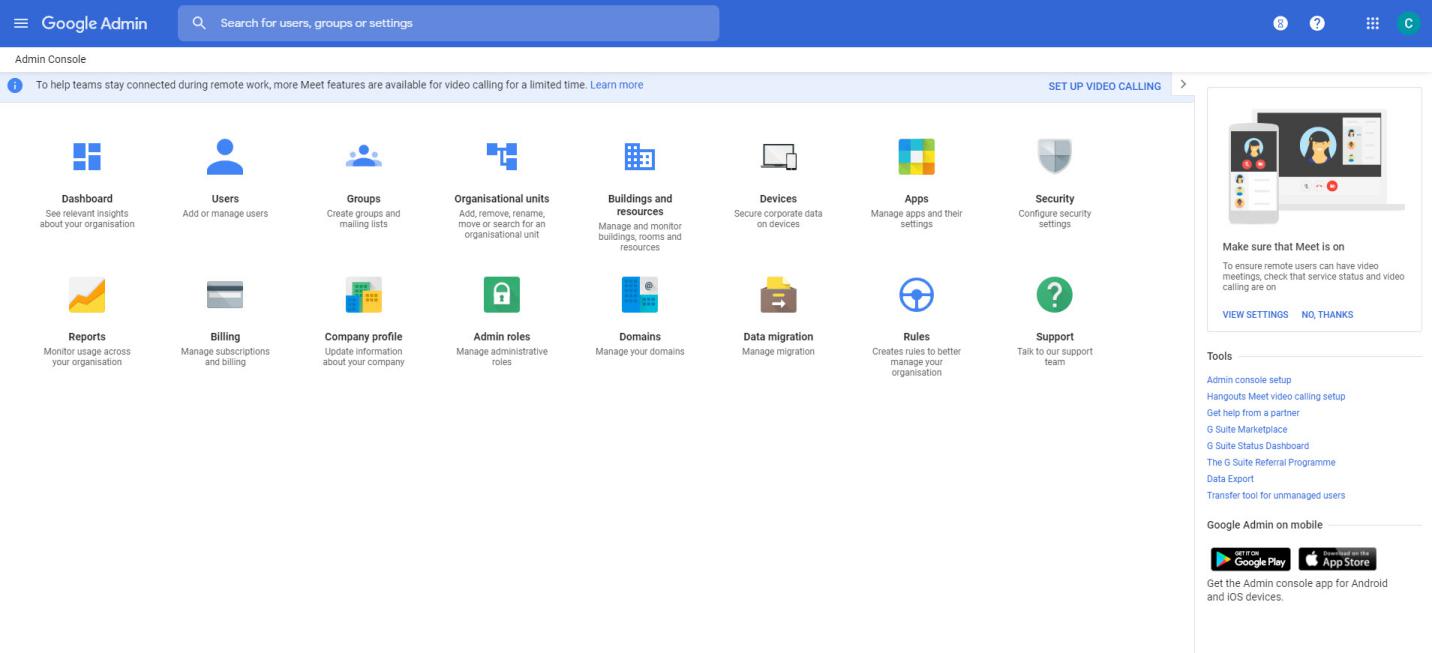
****Introduction****

The admin console home page shows controls or icons that launch various administrator settings, and has links to tools and common administrative tasks.

The first time you first sign in to the admin console, the most commonly used controls are visible. Additional options are available inside each control or from the Google Admin menu.

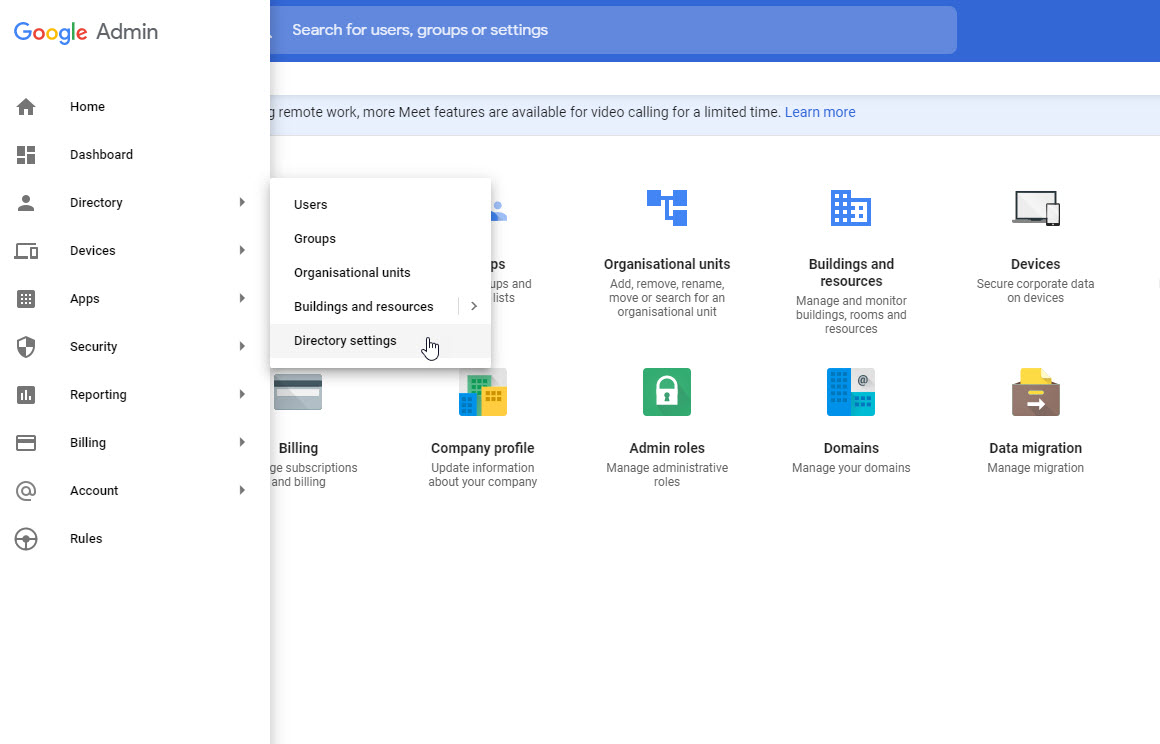
****Directions****

1. If you are not already signed in, sign in to your domain as the administrator at [admin.google.com](https://admin.google.com/" \t "/home/sherwinowen/Documents\\x/_blank). You will see the following dashboard.



2. Click the three horizontal lines on the top left of the screen to reveal the side menu. This menu makes it easier to see, find, and directly navigate to the information and settings in your admin console:

* Easily scan a shorter, multi-layered menu that helps you find things quickly.
* Quickly find what you’re looking for by hovering over and clicking through the menu to drill down directly to the pages you want to see.
* The streamlined menu removes clutter for delegated admins so they will only see the menu items they have access to with their level of administrative privileges.



****Tip:****Click ****Google Admin**** at the top left of the screen to return the home page at any time, or click ****Home**** from the side menu.

****Help Center resources****

* [What is the Admin console?](https://support.google.com/a/answer/55955" \t "/home/sherwinowen/Documents\\x/_blank)
* Refer to the[Admin console feature map](https://support.google.com/a/answer/3035631?hl=en" \t "/home/sherwinowen/Documents\\x/_blank) for a list of settings you can manage in your admin console, along with the menu location of each setting.

## **Exercise #5 - Review your Company Profile**

****Introduction****

The Company profile is where you define company-wide settings for properties such as language, time zone, and company name. You also use this profile to manage policies such as when users can see newly released features in G Suite services.

****Directions****

1. If you are not already signed in, sign in to your domain as the administrator at [admin.google.com](https://admin.google.com/" \t "/home/sherwinowen/Documents\\x/_blank).

2. Click the ****Company profile**** icon.

3. Click the ****Profile**** section.

This is where you can configure company-wide settings. Explore the various profile settings.

* The 'Organization name' will be taken from the information that you provided when you signed up for G Suite. This may be your domain name or the business name you entered at that time. This name will appear to your users in many G Suite services.
* The email addresses found in the 'Contact information' section also match the information that was provided during the sign up process.
* You can use the 'Support message' section to enter a message users will see when they sign into the [User Hub](https://apps.google.com/user/hub" \t "/home/sherwinowen/Documents\\x/_blank). This is a useful place to add details advising your users how to contact support.
* Verify the 'Language' and 'Time zone'. These represent the default settings for new accounts.
* The 'New User Features' setting is where you control how fast new features are released to your users for existing services. Scheduled Release is the default and recommended setting. Choose this track to delay releasing new features to users (at least 1 week following rapid release) which will give you more time to train your support staff and prepare users for the coming changes. For more information, see [Set up G Suite feature releases for users](https://support.google.com/a/answer/172177" \t "/home/sherwinowen/Documents\\x/_blank).
* The 'New products' setting allows you to control whether new G Suite services become available to your users as they are released or not. For more information, see [Opt in to new services](https://support.google.com/a/answer/82691" \t "/home/sherwinowen/Documents\\x/_blank).

4. if you have made any changes, click ****SAVE****.

5. Click the ****Personalization**** section. This is where you can upload your company logo and brand the G Suite services for your users. Optionally, create an image file and upload it to your company profile. The recommended size for a logo image is 320 x 132 pixels. See[Add your logo](https://support.google.com/a/answer/96474?visit_id=1-636336707735283053-2025680191&rd=1" \t "/home/sherwinowen/Documents\\x/_blank) for more information.

****Other settings****

* ****Communication preferences:****Set which communications you wish to receive from Google. By default all options are disabled.
* ****Supplemental Data Storage:**** Specify an additional country in which you want your user’s data stored. This is a company-wide setting. See [Set up Supplemental Data Storage](https://support.google.com/a/answer/6281927" \t "/home/sherwinowen/Documents\\x/_blank) for more information.
* ****Legal and Compliance:**** Find links to legal and compliance information and contact details.
* ****Data regions****: Set policies which control where your user’s data is stored in Google’s data centers. See [Choose a geographic location for your data](https://support.google.com/a/answer/7630496" \t "/home/sherwinowen/Documents\\x/_blank)for more information.
* ****Custom URLs:**** Define user friendly URLs to your core G Suite services. See [Customize a G Suite service URL](https://support.google.com/a/answer/53340" \t "/home/sherwinowen/Documents\\x/_blank) for more information.
* ****Account management:**** Used to delete your G Suite account.

## Introduction to Provisioning

****Introduction****

In the lessons that follow, you'll learn how to provision (add) users, groups and resources in your G Suite domain. Later in the course we will cover users, groups and resource management in more detail.

****Before you get started****

In these exercises, as a G Suite administrator you have control over the user passwords. To avoid confusion or being locked out of an account, it's best to keep a consistent policy for password creation. For these exercises, the default password for all new users is hellohello1, unless you choose the auto-generated temporary password option. Feel free to choose your own new password, but do remember to take note of it!

The free trial G Suite account you're using for this course is free for up to 10 users. For more information, see the[About your free G Suite trial](https://support.google.com/a/answer/6388094?hl=en" \t "/home/sherwinowen/Documents\\x/_blank) help center article.

**ADDING USERS**

## **Users Overview**

****Introduction****

Each person in your organization needs a user account to use Google services and each account requires a G Suite license. There are a number of ways to add (or provision) your users. You can add them one at a time, in bulk through a Comma Separated Values (CSV) file upload, via the Admin SDK Directory API, or using a third party tool such as Google Cloud Directory Sync (GCDS).

The following readings and exercises explore these options.

****Help Center resources****

* [Add users](https://support.google.com/a/topic/14586" \t "/home/sherwinowen/Documents\\x/_blank)
* [Add users individually](https://support.google.com/a/answer/33310?hl=en&ref_topic=4364723" \t "/home/sherwinowen/Documents\\x/_blank)
* [Add several users at once](https://support.google.com/a/answer/40057" \t "/home/sherwinowen/Documents\\x/_blank)

## **Exercise #1 - Add Users Individually**

****Introduction****

In this exercise, you'll manually add an individual user: Alex Bell, the IT Manager.

****Directions****

1. If you are not already signed in, sign in to your domain as the administrator at [admin.google.com](https://admin.google.com/" \t "/home/sherwinowen/Documents\\x/_blank).

2. Click the ****Users**** icon.

3. Click ****Add new user****.

4. In the dialog box that appears, create your company's IT Manager user account as follows:

* First name: Alex
* Last name: Bell
* Primary email: alex.bell@yourdomain

****Tip:**** If your account has multiple domains associated with it, you will see a domain drop-down list so you can choose the correct domain for each new user. The domain is the part of the user's email address that appears after the @ symbol.

* Each user is assigned to an organizational unit. At this stage of the course we have just one single top level organization so Alex will by default be placed into that organization. We will discuss organizational structure later in this course.
* Leave the secondary email and phone number fields empty.
* You can assign a temporary, randomly generated password or manually enter a temporary password. Note: Passwords must be at least 8 characters long and cannot exceed 100 characters. Either way, it’s best practice to ensure that the new user changes this when signing in for the first time so ensure that 'Ask for a password change at next sign in' is enabled. For this exercise, allow G Suite to generate the temporary password.

5. Click ****ADD NEW USER**** to create Alex's account.

Congratulations! You've added your first user in your new domain!

Notice the 'Show Password' link in the dialog box. This allows you to see the temporary password generated. You can also copy the password to your clipboard using the 'Click to copy password' link. Alternatively, click ****MORE ACTIONS**** from where you can either email or print the login details for your new user.

5. Click ****DONE****.

****Help Center resources****

* [Add users individually](https://support.google.com/a/answer/33310" \t "/home/sherwinowen/Documents\\x/_blank).

## **Exercise #2 - Add Several Users at Once**

****Introduction****

You've learned how to add users manually; however, when adding many users at once, this method is quite time consuming. Let's see how to bulk upload multiple users at once.

| **First name** | **Last name** | **Email address** | **Employee title** |
| --- | --- | --- | --- |
| Ellie | Gray | ellie.gray@yourdomain | Executive Assistant |
| Jon | Baird | jon.baird@yourdomain | HR Contractor |
| Lars | Ericsson | lars.ericsson@yourdomain | HR Manager |
| Samantha | Morse | samantha.morse@yourdomain | CEO |
| Tim | Lee | tim.lee@yourdomain | Finance Manager |
| Tom | Edison | tom.edison@yourdomain | Support Engineer |
| Will | Marconi | will.marconi@yourdomain | Support Engineer |

****Scenario****

You receive this mail from the IT Manager, Alex:

Hey G Suite Admin,

Thanks for creating my G Suite account. Now our next task is to get the rest of our user accounts created. Below is a list of people.

Can you create these user accounts?

Thanks,

Alex Bell, IT Manager

****Directions****

Download the template file

1. If you are not already signed in, sign in to your domain as the administrator at [admin.google.com](https://admin.google.com/" \t "/home/sherwinowen/Documents\\x/_blank).

2. Click the ****Users**** icon.

3. Click ****Bulk upload users**** then click the ****CSV template**** link. This will download a blank file with all the required columns to your local machine. Leave this dialog box open to upload the file after editing.

Add user information

4. Open the CSV file in a spreadsheet application or a text editor if you prefer.

5. Populate the file with a row for each user using the information from the table Alex provided.

The file contains a column for each attribute that appears on the user profile in the admin console and in Gmail contacts.

The following columns are mandatory:

* First Name
* Last Name
* Email Address
* Password (enter hellohello1)
* Org Unit Path (For this exercise, enter the forward slash symbol / into this column. This represents the root organization)

If you prefer, you can use the example CSV file below as your starting point. Simply edit this file and change the domain part of the email address to match your domain.

[users-for-upload.csv](https://d3c33hcgiwev3.cloudfront.net/yi6zq5BbRrSus6uQWxa0LA_99abf2f3aa304a118ebd496eb081bbd1_users-for-upload.csv?Expires=1599264000&Signature=G68hHgjxlCw~xj3Nq05hNzb0QyLBfZQzdJj6qoktUsii4Wp6eNkzrTOcgJ-1X-B0mcvnPr0unXTn9a-7mYrw3XcIW1POBM-tLwDXfP5b098g05i6ebCcuiPXAduMZRww8NuagZQORp0g45Gy9cK1lcL-HO26ZeMPISQLiQWG1y8_&Key-Pair-Id=APKAJLTNE6QMUY6HBC5A" \t "/home/sherwinowen/Documents\\x/_blank)

Upload the file

6. Save a copy of your own file or the users-for-upload.csv file to your local machine. Alternatively, if you have created your own file in Google Sheets, click ****File > Download As > Comma Separated Values (.csv, current sheet)****.

7. Return to the 'Bulk upload users' dialog box, click ****ATTACH CSV**** and browse to the edited spreadsheet you just saved locally, then click ****UPLOAD**** to initiate the creation of the user accounts.

* If your file has formatting errors, a warning prompts that you may need to re-edit the file.
* If successful, the progress of the upload will be reported in the ****YOUR TASKS**** list at the top of the page. You'll also receive an email report later.

8. The new users may take a couple of minutes to appear in the user list. If you don’t see them right away, try refreshing the screen. Review the list of users and explore the user settings.

Congratulations! You created multiple users at once!

****Notes****

1. It can take up to 24 hours for new user accounts to appear in the searchable domain directory.
2. If you're uploading more than 500 user accounts, you can optimize the experience by splitting your uploads into smaller batches.

****Help center resources****

* [Add several users at once](https://support.google.com/a/answer/40057" \t "/home/sherwinowen/Documents\\x/_blank)

## **Sync Users to G Suite with GCDS**

****Introduction****

As we have seen G Suite accounts can be created manually or in bulk. Either method works well but these methods are more applicable to smaller customers where less frequent user maintenance is needed.

Larger organizations often require a more automated approach to account management. Such customers may choose to deploy Google Cloud Directory Sync (GCDS) which can provision G Suite accounts directly from Microsoft® Active Directory® or LDAP server. In addition to account creation GCDS ensures that users, groups, and shared contacts in G Suite are synchronized with updates that are made to the local directory.

GCDS never modifies local directory information. Updates are only made to the Google Cloud Directory to reflect local changes.

****Who should use GCDS****

GCDS is particularly relevant to organizations that have a pre-established directory. Using GCDS removes the need to separately manage the Cloud Directory as it performs a one-way synchronization ensuring Google domain data matches the local directory at all times.

****Video demonstration****

GCDS runs on the customer’s own network so we are unable to provide a practice instance as part of this training. Instead, watch the video lecture, which immediately follows this reading, to see how GCDS is installed and configured in a typical customer environment.

****Help Center Resources****

Organizations that want to learn more about GCDS should read the following articles.

* [About Google Cloud Directory Sync](https://support.google.com/a/answer/106368" \t "/home/sherwinowen/Documents\\x/_blank) helps you understand how GCDS works and the key benefits of GCDS.
* Review the [What is Synced](https://support.google.com/a/answer/6120130" \t "/home/sherwinowen/Documents\\x/_blank) article to see what data types can be synchronized with your Google domain.
* The [GCDS FAQ](https://support.google.com/a/answer/7177266" \t "/home/sherwinowen/Documents\\x/_blank) lists many of the most popular questions asked when considering the use of GCDS.

**Example 1**: Run a simulated sync using the XML configuration file C:\Users\user\gds-config.xml:

sync-cmd -c C:\Users\user\gds-config.xml

**Example 2**: Run a full sync, including applying any detected changes, using the XML configuration file C:\Users\user\gds-config.xml:

sync-cmd -c C:\Users\user\gds-config.xml -a

To get help in sync command

Sync-cmd -h

## **Provision Users using the Admin SDK API**

****Introduction****

G Suite includes many Application Programming Interfaces (APIs) that allow customers and third party developers to integrate with G Suite services and data. One of these APIs is the [Admin SDK](https://developers.google.com/admin-sdk/" \t "/home/sherwinowen/Documents\\x/_blank) which can be used to automate administrative operations on users, groups, organizational units, and devices in your G Suite account. Included in the Admin SDK is the [Directory API](https://developers.google.com/admin-sdk/directory/" \t "/home/sherwinowen/Documents\\x/_blank) which includes methods to create and manage your user accounts.

GCDS actually uses the Directory API to provision and manage user accounts as part of the sync process.

It is beyond the scope of this training to go into depth on this topic but if you are interested in using any of the G Suite APIs there are some useful resources below.

****Resources****

* Manage your G Suite domain with the [Admin SDK](https://developers.google.com/admin-sdk/" \t "/home/sherwinowen/Documents\\x/_blank)
* [Directory API - User Accounts](https://developers.google.com/admin-sdk/directory/v1/guides/manage-users" \t "/home/sherwinowen/Documents\\x/_blank)
* [G Suite Developer Offerings](https://developers.google.com/gsuite/products" \t "/home/sherwinowen/Documents\\x/_blank)
* [Google APIs Explorer](https://developers.google.com/apis-explorer/" \l "p/" \t "/home/sherwinowen/Documents\\x/_blank)

**ADDING GROUPS**

## Groups Overview

****Introduction****

The Google Groups service includes:

* ****Admin console groups****: Groups used for communication, collaboration, and administration. Administrators create and manage these groups in the admin console.
* ****Groups for Business (managed by administrators and users)****: Groups used for communication and collaboration. When you turn on Groups for Business, you and your users can manage group features in Google Groups ([groups.google.com](https://groups.google.com/" \o "Google Groups" \t "/home/sherwinowen/Documents\\x/_blank)). Learn more about [Groups for Business](https://support.google.com/a/answer/33329?hl=en&ref_topic=14869" \l "Groups" \t "/home/sherwinowen/Documents\\x/_blank).

Groups can be created from the **admin console**, from the **Google Groups for Business service**, or using the **[Admin SDK Directory API](https://developers.google.com/admin-sdk/directory/v1/guides/manage-groups" \o "Admin SDK Directory API" \t "/home/sherwinowen/Documents\\x/_blank)**. GCDS can also be used to sync admin groups from any LDAP compliant directory to G Suite.

In this lesson you will also create two groups for your organization from the admin console. We will look at group settings later in this course.

****Help Center resources****

Review the following articles in order to learn more about Groups

* [Groups](https://support.google.com/a/topic/25838?hl=en&ref_topic=9197" \t "/home/sherwinowen/Documents\\x/_blank)
* [Ways to create groups](https://support.google.com/a/answer/33343?hl=en&ref_topic=6059322" \t "/home/sherwinowen/Documents\\x/_blank)
* [Add or remove group members](https://support.google.com/a/answer/6191469?hl=en&ref_topic=6059322" \t "/home/sherwinowen/Documents\\x/_blank)
* [Set up groups for your team](https://support.google.com/a/answer/172473?hl=en&ref_topic=25841" \t "/home/sherwinowen/Documents\\x/_blank)

**How to create groups**

* Using the Admin console
* Using new Groups
* Using classic Groups
* In the Google Groups API or using GCDS
* Using Groups in GCP Console (beta)
* Using target audiences

## **Exercise #1 - Create Admin Managed Groups**

****Introduction****

In this exercise you will create two groups from the admin console. Read through the scenario and directions below in order to practice creating admin managed groups.

****Scenario****

You receive this mail from Sam, the CEO:

Hey G Suite Admin,

We would like to have a group email address where I (and only I) can send company wide announcements to everyone.

I would also like to set up a team group for the use of the executive and managers only.

Can you please create these groups for us? Thanks,

Regards, Sam Morse, CEO

****Directions****

Create the group for all employees

1. If you are not already signed in, sign in to your domain as the administrator at [admin.google.com](https://admin.google.com/" \t "/home/sherwinowen/Documents\\x/_blank).

2. Click the ****Groups**** icon.

3. Click ****Create group**** and enter the following information:

* Name: All employees
* Description: Internal mailing list for everyone.
* Group email: everyone@yourdomain

4. Click ****NEXT****.

5. Set the 'Access type' to Announcement only. Anyone in the organization can view topics but only managers and owners can post.

6. Click ****CREATE GROUP****.

7. Click the ****Add Members to All employees**** link.

8. In the resulting page, click on the yellow circle with the + sign to add members and then click the ****Advanced**** link at the bottom of the 'Add members to All employees' dialog box.

9. Check the 'Add all current and future users of <your company> to this group with All Email setting' box and click ****ADD TO GROUP****.

10. Refresh the screen, you should see the member list has one entry called 'All users in the organization'. Note: New users will be automatically added to the group as they join your organization.

11. Repeat Step 8 but this time enter Sam's email address. She will be added to the member list with the Member role.

12. Hover over Sam and click the down arrow in the Role column and click ****Manager**** to make her the group manager.

13. Click ****SAVE****.

Sam can now email everyone in the organization by mailing everyone@yourdomain.

Create the management group

14. Return to the Groups page and create a new group as follows:

* Name: Management
* Description: Executive group
* Group email: management@yourdomain

15. Click ****NEXT****.

16. Set the 'Access type' to Restricted (Only members can post and view topics), create the group and add the following members:

* Samantha Morse (CEO)
* Alex Bell (IT Manager)
* Lars Ericsson (HR Manager)

17. Change Sam's role to be a group manager so she can add new members as needed.

The management team now have a private group in which to collaborate.

Verify group settings

18. Sign out and sign back in to G Suite at [mail.google.com](https://mail.google.com/" \o "mail.google.com" \t "/home/sherwinowen/Documents\\x/_blank) as samantha.morse@yourdomain.

19. Send a message to everyone@yourdomain and another message to management@yourdomain.

20. Open the Groups for Business service at [groups.google.com](https://groups.google.com/" \o "groups.google.com" \t "/home/sherwinowen/Documents\\x/_blank).

21. Click ****My groups****. You should see the both groups listed. Open each group in turn and verify that your messages were delivered.

22. Sign out and sign back in to G Suite at [mail.google.com](https://mail.google.com/" \o "mail.google.com" \t "/home/sherwinowen/Documents\\x/_blank) as will.marconi@yourdomain. You should see the message sent by Sam to everyone in your inbox.

23. Send a message to everyone@yourdomain and another message to management@yourdomain.

24. Refresh your inbox (you may need to do this a few times). You do not have permissions to post to either group so should receive a delivery failure report for each of the two messages.

25. Sign out and sign back in to G Suite at [mail.google.com](https://mail.google.com/" \o "mail.google.com" \t "/home/sherwinowen/Documents\\x/_blank) as lars.ericsson@yourdomain. Lars is a member of the Management group so you should see both messages sent by Sam earlier in your inbox.

26. Send a message to everyone@yourdomain and another message to management@yourdomain.

27. Refresh your inbox (you may need to do this a few times). You should receive a delivery failure report for the message sent to everyone@yourdomain only.

28. Open the Groups for Business service at [groups.google.com](https://groups.google.com/" \o "groups.google.com" \t "/home/sherwinowen/Documents\\x/_blank).

29. Click ****My groups****. You should see the Management group listed. Open the group and verify that your message was delivered.

****Notes****

1. Administrators, even if not members of a group have all privileges in the admin console.

2. Using the Groups for Business service, your users can also create their own groups. They can create simple **email lists**, **web forums**, **Q&A groups** and **collaborative inboxes**. As the administrator you can see and manage any of these user created groups from the admin console.

****Help Center resources****

* [Groups](https://support.google.com/a/topic/25838?hl=en&ref_topic=9197" \t "/home/sherwinowen/Documents\\x/_blank)
* [Ways to create groups](https://support.google.com/a/answer/33343?hl=en&ref_topic=6059322" \t "/home/sherwinowen/Documents\\x/_blank)
* [Add or remove group members](https://support.google.com/a/answer/6191469?hl=en&ref_topic=6059322" \t "/home/sherwinowen/Documents\\x/_blank)
* [Set up groups for your team](https://support.google.com/a/answer/172473?hl=en&ref_topic=25841" \t "/home/sherwinowen/Documents\\x/_blank)

**ADDING BUILDINGS, FEATURES AND CALENDAR RESOURCES**

## **Calendar Resources Overview**

****Introduction****

In addition to scheduling meetings in Google Calendar, G Suite users in your organization can manage shared resources. The most common example of a resource is a meeting room. Other examples might include projectors, company fleet cars, or any other resource people might schedule a time to use.

It's recommended that you define your resources using a structured format that includes information about the resource location, capacity, or equipment. Calendar uses this data to give more room and resource details, helping your users choose the best resource for their needs. Structured resource naming will give your users the best experience in Google Calendar so it is worth making an effort when adding resources to your organization.

Setting up your resources involves three steps. First you will add your building information, then you will add any features, e.g: video, audio, and finally you will add the resources themselves.

**Buildings, features and resources** are created from the admin console. They can also be uploaded in bulk via a CSV file or created using one of the resources methods available in the [Admin SDK Directory API](https://developers.google.com/admin-sdk/directory/v1/reference/resources/buildings" \o "Admin SDK Directory API" \t "/home/sherwinowen/Documents\\x/_blank).

In the following exercise you will add two calendar resources after first defining your building and adding some common features that might be found in each resource.

****Help Center resources****

* [Set up buildings, features, and other resources](https://support.google.com/a/answer/1033925" \o "Set up buildings, features, and other resources" \t "/home/sherwinowen/Documents\\x/_blank)

## **Exercise #1 - Adding Calendar Resources**

****Introduction****

In this exercise you will create two structured calendar resources for your main building. You will also define some features that can be applied to each resource. Read through the scenario and directions below in order to practice creating calendar resources.

****Scenario****

You receive this mail from the IT Manager, Alex:

Hey G Suite Admin,

We would like to allow our users to book a couple of our meeting rooms directly from Google Calendar. Can you please add the main boardroom, and the top floor conference room information to our calendar system.

Thanks,

Alex Bell, IT Manager

****Directions****

In the following instructions, let's assume that you have gathered details about the facilities (features) available in each of two rooms. The first step is to add your building details.

Add building

1. If you are not already signed in, sign in to your domain as the administrator at [admin.google.com](https://admin.google.com/" \t "/home/sherwinowen/Documents\\x/_blank).

2. Click the ****Buildings and resources**** icon.

3. On the Resource management card, click the ****OPEN**** link.

4. Click ****ADD BUILDING****.

5. Click on the yellow circle with the + sign to add a new building. Complete the dialog as follows:

* Name: Head Office
* Description: Main work location
* Floors: 1,2,3,4
* Address: Enter your address. (Click the Pencil icon at the end of the Address field to add your address)

6. Click ****ADD BUILDING****.

****Note:**** The Building ID is used to associate a resource with a particular building which is why you must define your buildings first.

Add features

7. In the navigation at the top of the page, switch the view from Buildings to Resources.

8. Click the 'Manage resource features' icon (three horizontal lines with a pencil icon over the bottom line) which is located in the top right corner of the Resources list.

9. Click ****ADD FEATURE**** and enter the following details:

* Feature name: Refreshments
* Feature type: Other

10. Click ****SAVE****.

11. Click ****ADD FEATURE**** and enter the following details:

* Feature name: Google Meet Hardware
* Feature type: Video conferencing

12. Click ****SAVE****.

13. Click ****CLOSE****.

Our features are added so it is time to add our resources.

Add resources

14. Click on the yellow circle with the + sign to add a new resource. Complete the dialog as follows:

* Category: Meeting space (this should be the default)
* Type: Meeting room
* Building: Head Office (this should be the only entry available as you have only added one building)
* Floor: 4
* Floor section: This indicates where on the floor the room is located. It's optional but enter East.
* Resource name: Conference room
* Capacity: 10
* Features: Select Google Meet Hardware
* User visible description: Extension 326 (Free-form description of the room that is visible to users in the room details)

15. Click ****ADD RESOURCE****.

16. Click on the yellow circle with the + sign. Now add your second resource as follows:

* Category: Meeting space (this should be the default)
* Type: Meeting room
* Building: Head Office (this should be the only entry available as you have only added one building)
* Floor: 2
* Floor section: This indicates where on the floor the room is located. It's optional but enter West.
* Resource name: Boardroom
* Capacity: 20
* Features: Select Google Meet Hardware and Refreshments
* User visible description: Extension 316 (Free-form description of the room that is visible to users in the room details)

17. Click ****ADD RESOURCE****.

Congratulations, you have just added two structured calendar resources to your G Suite account.

Explore the settings

18. From the list of resources, click on the Conference room row to open the resource details. On the left hand side you will see an email address and an auto-generated resource name in the following format:

* Resource email: yourdomain\_1993ce917vkushojkrbuv2ckpu2t66gb68o34dpk64q3icph70@resource.calendar.google.com
* Auto-generated resource name: Head Office-4-East-Conference room (10) [Google Meet Hardware]

19. Open your Google Calendar and click the + button to the right 'Other calendars' and select ****Browse resources****. You should now see the two resources listed. Check each of them to subscribe. The two resources should now appear in your list of calendars.

20. Create a test event and start typing Head office into the 'Guests' field. You should see the two resources listed in autocomplete for selection.

****Notes****

1. Resources may not show immediately in Google Calendar. Also, popup card information as presented in the Help Center article [Impact of using structured resources](https://support.google.com/a/answer/7540850" \o "Impact of using structured resources" \t "/home/sherwinowen/Documents\\x/_blank) may also take some time to propagate.
2. if you are unable to see the resources in Google Calendar, try again later or try clicking the + button to the right of 'Other calendars', then select ****Subscribe to calendar****. Then paste the resource email address into the 'Add calendar' field.
3. Resource calendar settings such as sharing settings are managed from Google Calendar.

**MANAGING USERS**

## **Managing Users**

****Introduction****

Earlier you learned how to add new users to your G Suite organization.

Ongoing user accounts management is a core function of the G Suite administrator, and something that you will do on a daily basis. In this lesson you will complete a number of exercises where you will learn how to undertake some of the more common user management tasks in G Suite.

****Help Center resources****

* [Manage user accounts](https://support.google.com/a" \l "topic=2425090" \o "Manage user accounts" \t "/home/sherwinowen/Documents\\x/_blank)

## Exercise #1 - Add an Email Alias for a User

****Introduction****

Now that you've added a larger batch of users, some of your users have already signed in and started to use G Suite. In this exercise you will be given a scenario where you are asked to create an email alias for a user. An email alias allows a user to receive email sent to multiple addresses in their Gmail inbox.

Read through the scenario, and then go through the steps to complete the exercise!

****Scenario****

You receive this email from the CEO:

Hello G Suite Admin,

Thanks for creating my G Suite account. However I have to ask for a minor change. My email is samantha.morse@yourdomain but really most people know me as just “sam”. Is there any way I can have this as my email also?

Regards,

Sam Morse, CEO

****Directions****

1. If you are not already signed in, sign in to your domain as the administrator at [admin.google.com](https://admin.google.com/" \t "/home/sherwinowen/Documents\\x/_blank).

2. Click the ****Users**** icon.

3. Locate Samantha Morse in the user list, click her name, and click the ****User information**** card.

4. Click the ****Email aliases**** section.

5. In the ****Alias**** text field, enter sam and click ****SAVE****.

6. Now notify Sam about her new email alias and remind her about its limitations:

Dear Sam,

I have created a new email alias for you. In addition to your primary email address, samantha.morse@yourdomain, you can now also receive mail sent to sam@yourdomain.

However, please be aware that you'll still need to use your primary email address: samantha.morse@yourdomain to sign in to G Suite.

Note that it may take up to 24 hours for the email alias to become available.

Regards, Your G Suite Admin

****Notes****

1. If you add a[domain alias](https://support.google.com/a/answer/182079" \t "/home/sherwinowen/Documents\\x/_blank) every email address in the primary domain automatically has an email alias address in the alias domain. We will discuss domains in more detail later.

****Help Center resources****

* [Add or remove an email alias](https://support.google.com/a/answer/33327" \t "/home/sherwinowen/Documents\\x/_blank)

## **Exercise #2 - Reset a User's Password**

****Introduction****

As the administrator you're likely to come across a situation where a user needs their password to be reset.

* A user may simply forget their password
* A user's account is compromised (security concerns)

G Suite includes a feature that allows users to recover their own password but this is disabled by default, and each user must add a recovery phone or email address to their account for this feature to work.

Where the user does not know their password, and recovery information has not been added (or if self-service recovery is not enabled), the administrator must reset the password.

****Scenario****

Tim Lee has just come back from vacation, he calls to ask you to reset his password, because he's forgotten it and is now locked out of his account.

****Directions****

1. If you are not already signed in, sign in to your domain as the administrator at [admin.google.com](https://admin.google.com/" \t "/home/sherwinowen/Documents\\x/_blank).

2. Click on the ****Users**** icon.

3. Access the reset password function by one of two ways:

* Hover over Tim Lee in the user list and click ****Reset password**** on the right.
* Click on Tim Lee in the user list to open his profile and then click ****RESET PASSWORD**** on the left.

4. In the 'Reset password' dialog box:

* Fill in a temporary password or click ****Auto-generate password**** to let Google create one for you.
* Check the 'Ask for a password change at the next sign-in'.
* Click ****RESET****.
* Click the ****Click to copy password**** link to copy the password to your clipboard.
* Click ****DONE****.

5. Provide Tim with his new password. When he next signs in he will be asked to change his password.

****Notes****

1. Users can change/reset their existing password if they know their existing password and can successfully sign in. See [Change or reset your password](https://support.google.com/mail/answer/41078" \t "/home/sherwinowen/Documents\\x/_blank).
2. If the administrator has enabled non-admin password recovery users can reset their password without administrator assistance. See [Set up password recovery for users](https://support.google.com/a/answer/33382?hl=en&ref_topic=7294638" \t "/home/sherwinowen/Documents\\x/_blank) for more details. Note that this feature is not available for customers using Single Sign-on (SSO).
3. Admins should check the Help Center for considerations regarding user off-boarding, and hijacked accounts before enabling this feature.

****Help Center resources****

* [Reset a user’s password](https://support.google.com/a/answer/6169271" \t "/home/sherwinowen/Documents\\x/_blank)
* [Create a strong password & a more secure account](https://support.google.com/accounts/answer/32040" \t "/home/sherwinowen/Documents\\x/_blank) for password tips.

## **Exercise #3 - Rename a User**

****Introduction****

As an administrator for your organization's G Suite service, you change a user’s email address in the admin console. You can also change the display name that shows up in emails they send, calendar invites, and so on. Users can also change their own display name but they can’t change their address.

****Scenario****

You receive this mail from the Tim Lee:

Hello G Suite Admin,

Thanks for resetting my password. I have another issue with my account, maybe you can help. I don't ever use the name Tim. At work I go by my full name Timothy but all my friends and coworkers call me Timmy. Can you fix my account so I login and mail with my preferred names?

Thanks,

Timothy Lee, Finance

You decide that the best way to implement this is to rename the user to timothy@yourdomain to allow him to sign in and use his mail with this new username. Then add an alias of timmy@yourdomain to the account.

****Directions****

1. Ask Tim Lee to sign out of his G Suite account.

2. If you are not already signed in, sign in to your domain as the administrator at [admin.google.com](https://admin.google.com/" \t "/home/sherwinowen/Documents\\x/_blank).

3. Click the ****Users**** icon.

4. In the user list, hover over Tim Lee and click ****Rename user**** on the right.

5. In the 'Rename user' dialog box, read the warning message and enter the following:

* First name: Timothy
* Last name: Lee
* Primary email: timothy.lee. This is the username he'll use to sign in to G Suite.

The First and Last name settings represent the Display Name.

6. Click ****RENAME**** and then click ****CONTINUE**** to confirm the change.

Now that you have renamed the user to allow him to use his full name (Timothy) to sign in and send mails, let's look at his other request to use the name Timmy to send mail.

7. If you are not already in Timothy's user profile select Timothy Lee from the users list.

8. Expand the****User information**** card and click on the ****Email aliases**** section. Notice here that Tim’s original email address tim.lee@yourdomain has been added as an alias. This is to ensure that he can still receive mail sent to his old primary address.

9. Add a new alias Timmy and click ****SAVE****.

Now you can see the difference between just adding an alias for a user and renaming a user.

****Notes****

1. It can take up to 10 minutes for a new primary email address (rename) to be reflected throughout the system, 24 hours for domain and personal contact changes to take effect, and up to 3 days before the user can use chat.
2. It can take up to 24 hours for the alias to become available.

****Help Center resources****

* [Rename a user](https://support.google.com/a/answer/182084" \t "/home/sherwinowen/Documents\\x/_blank)

## **Exercise #4 - Suspend a User**

****Introduction****

As a G Suite administrator, you can temporarily block a user's access to G Suite services by suspending the user's account. This disables the account without deleting the user or any data in their account. Any content that they own and have shared with others remains accessible to collaborators.

A suspended user can't sign in to the account, and new emails and calendar invitations are blocked. As the account is not deleted a license fee still applies.

****Scenario****

You receive this email from Lars Ericsson, the HR Manager:

Hey G Suite Admin,

I had a contractor working with me last week for a project, his name is Jon Baird. He has an account to sign in to our system but for the next few weeks he'll be working somewhere else. Is there a way to prevent him from signing in without losing all the work he's done already? He'll be back to work with us soon.

Regards, Lars Ericsson

****Directions****

1. If you are not already signed in, sign in to your domain as the administrator at [admin.google.com](https://admin.google.com/" \t "/home/sherwinowen/Documents\\x/_blank).

2. Click the ****Users**** icon.

3. Locate Jon Baird in the list and hover over his name, then click ****More > Suspend user****.

4. Click ****SUSPEND****. The Status column for Jon will change from Active to Suspended.

****Tip:****To view only suspended users, click ****Add a filter > User status****, select ****Suspended**** and ****APPLY**** the filter. Your filter will also show at the top of the screen. Clear the filter by clicking the cross to the right of the filter value.

****Scenario (continued)****

A few weeks later, you receive another email from Lars Ericsson, the HR Manager:

Hey G Suite Admin,

I have a contractor, Jon Baird, who will be working with us again next week. He had an account before but is locked out at my request. Can you please re-enable him?

Regards, Lars Ericsson

As a G Suite administrator, you can restore a user you (or another administrator) suspended.

****Directions (continued)****

1. In the user list, filter for suspended users. Locate Jon Baird in the list and hover over his name, then click ****More > Reactivate****.

2. Click ****REACTIVATE**** to confirm. Jon will be removed from the suspended user list.

3. Clear the filter and confirm that Jon’s status has been changed back to Active.

Jon can now sign in and has full access to his account and data.

****Notes****

1. Administrators manually suspending users is just one way that a G Suite account can be suspended or disabled. If the user is manually suspended by an administrator, it's possible for an administrator to restore their account immediately.
2. A user can also be automatically suspended from Gmail for exceeding [Email sending limits](https://support.google.com/a/answer/166852" \t "/home/sherwinowen/Documents\\x/_blank). In this case, the user can still sign in to their G Suite account to access other services, such as Calendar and Drive. But when they try to access Gmail, an error prompts that Google detected unusual activity on the account. Most users will regain access automatically within 24 hours, but in some cases, an administrator can reset the limits for the user and allow them to immediately regain access.
3. You cannot restore an account that was suspended for abuse or for breaching Google’s [Terms of Service](https://gsuite.google.com/terms/2013/1/premier_terms.html" \o "Terms of Service" \t "/home/sherwinowen/Documents\\x/_blank).
4. You cannot restore a user with an abusive account status. Administrators can contact Google Support for more information.

****Help Center resources****

* [Suspend a user](https://support.google.com/a/answer/33312?hl=en" \t "/home/sherwinowen/Documents\\x/_blank)

When you suspend an account, the user's:

* Email, documents, calendars, Currents posts or other data aren't deleted.
* Shared documents are still accessible to collaborators.
* New email and calendar invitations are blocked.

## **Exercise #5 - Delete a User**

****Introduction****

When a user leaves your organization you might want to delete their G Suite account. This deletes all of their data and they'll no longer be able to sign in to G Suite. It's important to understand the difference between account deletion and suspension,  so you should develop a process for users leaving the company, and create a policy that best suits your business needs.

Once you delete the account data is retained for a period of 20 days so this does give you the opportunity to restore an account should you need to within a limited time frame. In addition, it is also possible to transfer certain data (eg: Docs, Calendar) to a new owner at the point of account deletion.

Be aware that there are many other considerations that you should be aware of before deleting an account; there may be many other types of data that could be lost without following proper steps.

****Scenario****

After some time working in the G Suite domain, you get another email from Lars Ericsson, the HR Manager:

Hey G Suite Admin,

That contractor I had working with me, Jon Baird, has finished up his project. Can you please delete his account from the system as he won't be working here anymore? Will you make sure that any files he still has belong to me now? Don't want to lose anything important.

Regards, Lars Ericsson

****Directions****

1. If you are not already signed in, sign in to your domain as the administrator at [admin.google.com](https://admin.google.com/" \t "/home/sherwinowen/Documents\\x/_blank).

2. Click the ****Users**** icon.

3. Locate Jon Baird in the list and hover over his name, then click ****More > Delete user****.

You now have the option to transfer certain types of data from Jon’s account to a new owner. Lars has asked you to transfer ownership of all of Jon’s files to him.

4. In the dialog ensure '**Drive and Docs**' is selected and check '**Include files that are not shared with anyone**'. You can deselect '**Calendar**' and '**Brand accounts**'.

5. Search for Lars Ericsson to complete the 'Transfer to' field and click ****DELETE****.

Jon’s account will now temporarily be suspended whilst the transfer takes place. The account will then be deleted.

6. Click ****DONE****.

7. Check your inbox. You should receive a notification confirming that the deletion was successful.

****Help Center resources****

* [Delete a user from your organization](https://support.google.com/a/answer/33314" \t "/home/sherwinowen/Documents\\x/_blank)

## **Exercise #6 - Restore a Recently Deleted User**

****Introduction****

The G Suite super administrator can restore a user account up to 20 days after deleting it. After this period, the admin console permanently deletes the user account and it can't be recovered, even by Google technical support.

In most cases, restoring a deleted user account also restores the user's associated data, including email and calendar events; however, Google doesn't guarantee full data recovery for a deleted user.

****Scenario****

The next day you get a high priority email from Lars Ericsson, the HR Manager:

Hello G Suite Admin,

I'm afraid I was a little premature in getting you to delete our Jon Baird’s account. We've decided to hire him as a full-time employee.

Is there any way you can restore his user account?

Regards, Lars Ericsson

****Directions****

1. If you are not already signed in, sign in to your domain as the administrator at [admin.google.com](https://admin.google.com/" \t "/home/sherwinowen/Documents\\x/_blank).

2. Click the ****Users**** icon.

3. Click ****Add a filter****and select ****Recently deleted****.

****Tip:****If you have multiple organizational units, complete this action from the top level organization. Deleted users lose their organization details and are moved to the top level organization. We will discuss organizational structure later in this course.

4. Locate Jon Baird in the list and hover over his name, then click ****Recover****.

5. Click ****CONTINUE****.

6. Select your top level organization and click ****RECOVER****.

7. Clear the ****Recently deleted**** filter to return the user list. It can take up to 2 hours to restore an account but you should shortly see Jon appear in the list.

8. If a user was suspended at the time the account was deleted, such as when you transfer ownership of data, the user will remain suspended after the account is restored. To reactivate Jon, locate him in the user list and hover over his name, then click ****More > Reactivate****. Then click ****REACTIVATE**** to confirm.

****Notes****

1. You can restore only one user at a time.
2. It may take some time for the user to be visible again in the active user list.
3. When you restore deleted users after transferring the ownership of their files to other users, the restored users do not automatically acquire ownership of their old files. Instead, they can only edit the files they previously owned.

****Help center resources****

* [Restore a recently deleted user](https://support.google.com/a/answer/1397578" \t "/home/sherwinowen/Documents\\x/_blank)

## **User Licenses**

****Introduction****

Every user needs a license to use a Google service. For example, a user must have a license for G Suite before they can use Gmail, Google Drive, or any other G Suite service.

There are two types of license, a site-based license and a user-based license. When you sign up for a service that has a site-based license such as Android every user in your organization gets a license so you don't need to assign this type of license. User-based licenses, such as a G Suite license may need to be assigned depending upon your subscriptions and this can be done manually or automatically.

****Assigning licenses****

If you purchased just one subscription, e.g: G Suite Enterprise all of your users will get this license automatically so you do not need to assign a license.

If you have multiple user-based subscriptions such as G Suite and Google Drive storage you must assign each user a license. You must also assign a license if you have multiple subscriptions to the same service, e.g: you may have G Suite Business and G Suite Enterprise licenses in your organization.

License assignment can be applied to everyone in your organization, at the organizational unit level ( we will discuss organizational structure later in this course) or at the individual user level. It is also possible to configure automatic license assignment for your organization so you do not need to manually assign a license to each new user.

****Notes****

1. A single user can have a license for more than one service.

****Help Center resources****

* [How licensing works](https://support.google.com/a/answer/6309862" \o "How licensing works" \t "/home/sherwinowen/Documents\\x/_blank)
* [Compare G Suite editions](https://support.google.com/a/answer/6043385" \o "Compare G Suite editions" \t "/home/sherwinowen/Documents\\x/_blank)

**ORGANIZATIONAL STRUCTURE**

## **Organizational Structure Overview**

****Introduction****

Initially all your users are placed in a single organization. All settings you make in the admin console apply to this top-level organization and therefore to all users in your G Suite account.

A single organization can be limiting however so you may want to create an organizational structure by adding organizational units (OUs) to your G Suite account.

There are several reasons why you would do this, for example:

* To control which applications and services are available to users
* To configure the available services differently for different sets of users

You can create as many organizational units as you want, either at the same level or in a hierarchy. Each child OU inherits settings from its parent. Changing a setting at a higher level changes the setting for all child OUs unless you have overridden inheritance and customized settings for the child OU.

A single user exists in one OU only.

In this module you will create two organizational units (OUs) for your company, and place users into each OU according to their job role. You will also learn how to disable a Google service for an individual OU.

****Help Center resources****

* [How the organizational structure works](https://support.google.com/a/answer/4352075" \o "How the organizational structure works" \t "/home/sherwinowen/Documents\\x/_blank)

## **Exercise #1 - Create Organizational Units**

****Introduction****

In this exercise, you will create two OUs and move your users into the appropriate OU based upon their role in the company.

****Directions****

1. If you are not already signed in, sign in to your domain as the administrator at [admin.google.com](https://admin.google.com/" \t "/home/sherwinowen/Documents\\x/_blank).

2. From the menu (top left) select ****Directory > Organizational units****.

3. Click on the yellow circle with the + sign to create a new OU.

4. Give the OU the name of Executive and click ****CREATE****.

5. Create another OU called Employees.

6. Navigate to your users list. You should see the two new OUs on the left hand side beneath the top level organization.

7. Select Alex, Lars, Samantha, and Timothy by checking the box to the left of their name in the user list.

8. Click ****More > Change Organizational unit****, and select ****Executive****. Then click ****CONTINUE****.

9. Click ****CHANGE**** to confirm the move.

10. Repeat Steps 7 - 9 but this time move Ellie, Jon, Tom, and Will to the Employees OU.

11. Review the options in the column to the left of your user list. Here you can see all users and you can now refine (or filter) the users by OU. Practice filtering by checking ****Users from selected organizational units**** and picking from the list below to refine the list. Notice how you can pick one or many OUs.

****Notes****

1. Changes can take 24 hours to propagate to all users.

****Help Center resources****

* [Add an organizational unit](https://support.google.com/a/answer/182537" \o "Add an organizational unit" \t "/home/sherwinowen/Documents\\x/_blank)
* [Modify the organizational structure](https://support.google.com/a/answer/182538" \o "Modify the organizational structure" \t "/home/sherwinowen/Documents\\x/_blank)
* [Move users to an organizational unit](https://support.google.com/a/answer/182449" \o "Move users to an organizational unit" \t "/home/sherwinowen/Documents\\x/_blank)

## **Exercise #2 - Restrict Access to a G Suite Service**

****Introduction****

In the previous exercise you created two OUs beneath your top level organization. One benefit of applying an organizational structure like this is that you can now enable/disable services at an OU level. Settings at one level are normally inherited by any child OUs but it is also possible to override inheritance at the OU level providing for greater flexibility.

Read through the scenario, and then go through the steps to complete the exercise!

****Scenario****

You receive this email from the CEO:

Hello G Suite Admin,

Alex advised me of a Google service called Takeaway which allows users to export their data from G Suite. Is it possible to enable this service for our executives only but restrict access to our employees? Thanks

Regards,

Sam Morse, CEO

Google Takeaway is an additional Google service which is enabled by default for all users in the organization so you must disable the service for all users in the Employees OU.

****Directions****

1. If you are not already signed in, sign in to your domain as the administrator at [admin.google.com](https://admin.google.com/" \t "/home/sherwinowen/Documents\\x/_blank).

2. From the menu (top left) select ****Apps > Additional Google services****.

3. On the left hand side click your top level organization,

4. Scroll down the list of services. Hover over 'Google Takeaway' and click on the 3 dots icon at the end of the row. Then click ****OFF (Override)****.

5. Click ****TURN OFF**** to confirm the change. This disables the service for everyone in your organization. We must now enable the service for your Executive OU.

6. On the left hand side click the ****Executive**** OU.

7. Scroll down the list of services and locate the 'Google Takeaway' service. Notice that the service is OFF. This setting has been inherited from the top level organization. Hover over 'Google Takeaway' and click on the 3 dots icon at the end of the row. Then click ****ON (Override)****.

8. Click ****TURN ON**** to confirm the change. Users in the Executive OU now have access to 'Google Takeaway'. Users in the root organization and any other child OU cannot use the service.

****Notes****

1. Changes can take 24 hours to propagate to all users.

****Help Center resources****

* [Control who can access G Suite and Google services](https://support.google.com/a/answer/182442" \o "Control who can access G Suite and Google services" \t "/home/sherwinowen/Documents\\x/_blank)

**INTRODUCTORY TO YOUR DIRECTORY**

## **Directory Overview**

****Introduction****

The G Suite directory contains profile information for users in your organization, Google group addresses, plus details of any shared contacts that you add. You can think of it as a global address book.

In addition to names and email addresses, profiles can contain other information such as employee ID, manager details, location, etc. This information helps people find one another, communicate with one another, and understand each other's role in the organization. As an administrator, you can add user information and control user visibility in Contacts and other Google services.

When contact sharing is enabled:

* Individual and group addresses autocomplete as users enter them in Google services like Gmail, Google Docs, and Drive.
* Calendar intelligently suggests meeting rooms based on the location and number of guests.
* Users can find profile information in Contacts and other Google services. For example, when users point at or tap someone’s profile photo, they open a person information card.

In this lesson you will explore your directory's sharing and visibility settings. You will also complete a number of exercises where you will allow users to update their own profiles and also create a custom directory for a subset of your users.

## **Exercise #1 - Verify Directory Settings**

****Introduction****

In this exercise, you will confirm that contact sharing is enabled for your organization.

****Directions****

1. If you are not already signed in, sign in to your domain as the administrator at [admin.google.com](https://admin.google.com/" \t "/home/sherwinowen/Documents\\x/_blank).

2. From the menu (top left) select ****Directory > Directory settings****.

3. Click ****Sharing settings****.

4. Ensure that 'Enable contact sharing' is selected. If it is disabled, enable it now.

In this section you can also specify which information is shared. For example, you can choose whether to show or hide email aliases, and if you have multiple domains in your organization you can share the entire directory across all domains or restrict sharing to the domain level only (i.e. users in one domain only see other users in that same domain).

5. Click ****SAVE**** if you have made any changes.

****Notes****

1. Changes can take 24 hours to propagate to all users.

****Help Center resources****

* [Turn Directory on or off](https://support.google.com/a/answer/60218" \o "Turn Directory on or off" \t "/home/sherwinowen/Documents\\x/_blank)

## **Exercise #2 - Update User Profiles**

****Introduction****

As an administrator you can add information such as phone numbers, secondary email addresses, and location details to a user's profile. You can edit profiles individually in the **admin console** or you can use the **Admin SDK API** or **a third party product**. You can also use **GCDS** to update user profiles. Finally, you can also allow users to update some profile information themselves.

In this exercise you will update a user's profile in the admin console. You will then update your directory settings to allow users to update their own profiles.

****Scenario****

You receive the following email from Lars Ericsson, the HR Manager:

Hey G Suite Admin,

You may recall that we recently hired Jon Baird. He used to work as a contractor but as he is now a full time employee can you update his job title to be HR Business Partner.

In addition, I understand that G Suite allows users to update some aspects of their own profile. I see no reason why our users should not be allowed to do this so can you please enable this feature. Thanks.

Regards, Lars Ericsson

****Directions****

Let's start by updating Jon's job title.

1. If you are not already signed in, sign in to your domain as the administrator at [admin.google.com](https://admin.google.com/" \t "/home/sherwinowen/Documents\\x/_blank).

2. Click the ****Users**** icon.

3. Locate Jon Baird in the list and click his name, then click the ****User information**** card.

4. Click anywhere in the ****Employee information**** section. You can now edit this section.

5. Change Jon's Job title to HR Business Partner and click ****SAVE****.

Now let's ensure users can update their own profiles.

6. Select ****Directory > Directory settings**** from the left hand menu.

7. Click ****Profile editing****.

8. By default, users can change their 'Birthday' and 'Work location' from their [About Me](https://aboutme.google.com/" \o "About Me" \t "/home/sherwinowen/Documents\\x/_blank) page. Check all other fields so that users can also update their 'Name', 'Photo' and 'Gender'.

9. Click ****SAVE****.

****Notes****

1. It might take up to 24 hours for changes to appear in the directory.

2. Adding work location information is recommended as this allows Google Calendar to make smart room recommendations based upon the user's location.

3. If you decide to complete your employee ID information (and you are not using SSO or 2SV) you can use these IDs as a login challenge to help protect your user accounts when Google suspects that an unauthorized person is trying to access a user’s account.

****Help Center resources****

* [Add information to a user’s profile](https://support.google.com/a/answer/6191788" \o "Add information to a user's profile" \t "/home/sherwinowen/Documents\\x/_blank)
* [Let users change their photo and profile information](https://support.google.com/a/answer/7326921" \o "Let users change their photo and profile information" \t "/home/sherwinowen/Documents\\x/_blank)
* [Add employee ID as a login challenge](https://support.google.com/a/answer/9022736" \o "Add employee ID as a login challenge" \t "/home/sherwinowen/Documents\\x/_blank)

Allow users to edit their profile information

* Name
* Photo
* Gender
* Birthday
* Work Location

## **Exercise #3 - Custom Directories**

****Introduction****

In a single domain environment your organization will have one directory (global address list) and all users can see everyone in that directory. In a multiple domain environment you can restrict visibility such that users in one domain can only see other users in their primary domain.

You can also set up custom directories to limit who users can find in autocomplete lists, contacts, and searches. **Custom directories are applied at the OU level.**

In this exercise you will create a new OU and configure it to use a custom directory.

****Scenario****

You receive the following email from Lars Ericsson, the HR Manager:

Hey G Suite Admin,

We are about to commence a new project and will be installing a new expenses system. A consultant will be joining us for a month or so to help us implement the new system and train our users.

Whilst here he will need to have a G Suite account so we can collaborate on project documents, etc. Can you please create the following account.

| **First name** | **Last name** | **Email address** | **Employee title** |
| --- | --- | --- | --- |
| Mark | Jones | mark.jones@yourdomain | Consultant |

We would also like to keep our company directory information confidential from contract staff so can you restrict visibility so that Mark can only see users involved on the project. Please ensure he can look up my details and Jon Baird as he will be leading the implementation on our behalf. Thanks.

Regards, Lars Ericsson

****Directions****

There are a number of steps you must complete to fully satisfy the request.

Create a new OU

Custom directories are applied to an OU so let's start by creating an OU.

1. If you are not already signed in, sign in to your domain as the administrator at [admin.google.com](https://admin.google.com/" \t "/home/sherwinowen/Documents\\x/_blank).

2. From the menu (top left) select ****Directory > Organizational units****.

3. Click on the yellow circle with the + sign to create a new OU.

4. Give the OU the name of Contractors and click ****CREATE****.

Create the user account

Now we need to create Mark's account.

5. Click the ****Users**** icon.

6. Click ****Add new user****.

7. In the dialog box that appears, create and account for Mark Jones as follows:

* First name: Mark
* Last name: Jones
* Primary email: mark.jones@yourdomain
* Organizational unit: Contractors (use the pencil icon on the right to select the correct OU)
* Password: hellohello1
* Ensure the 'Ask for a password change at the next sign-in' option is enabled to ensure Mark changes his password when he first signs into his account.

8. Click ****ADD NEW USER**** to create the account.

9. Click ****DONE****.

Create a Google group

Custom directories use Google Groups to determine which user information to show so we must create a Google group before we create the custom directory.

10. From the menu (top left) select ****Directory > Groups****.

11. Click ****Create group****.

12. Enter the following Group details:

* Name: HR Project
* Description: Custom directory group for HR
* Group email: hrproject

13. Click ****NEXT****.

14. Choose Team as the access type and click ****CREATE GROUP****.

15. Click the ****Add members to HR Project**** link, then click the yellow circle with a + sign to add members. Enter Mark's email address and also add Lars and Jon.

16. Click ****ADD TO GROUP****. You should now see all three users listed as members of the group.

17. Hover over Lars and click the down arrow in the Role column and select ****Manager**** to make Lars the group's manager.

18. Click ****SAVE****.

Create the custom directory for the new OU

The final step is to define the custom directory.

19. From the menu (top left) select ****Directory > Directory settings****.

20. Click ****Visibility settings****.

21. Select ****Contractors**** from the list of OUs on the left hand side of the page.

22. Change the Directory visibility to ****Users in a custom directory****.

23. Click ****CREATE NEW**** and enter a name for the new directory of HR Project.

24. In the ****Search for a group**** field, add the HR Project group.

25. Click ****CREATE****.

26. In the ****Choose a custom directory**** field, select HR Project and click ****OVERRIDE****.

27. Notify Lars that you have fulfilled his request, and don't forget to provide him with Mark's password.

Congratulations you have just added a custom directory to your organization!

****Notes****

1. It can take up to 24 hours for changes to custom directories to become available.

****Help Center resources****

* [Customize a directory for a team or group](https://support.google.com/a/answer/7566446" \o "Customize a directory for a team or group" \t "/home/sherwinowen/Documents\\x/_blank)

## **Shared Contacts**

****Introduction****

Your organization's directory will store information about users in your G Suite account but it is very likely that you will deal with users from outside of the organization on a regular basis.

Google provides the **[Domain Shared Contacts API](http://code.google.com/googleapps/domain/shared_contacts/gdata_shared_contacts_api_reference.html" \o "Domain Shared Contacts API" \t "/home/sherwinowen/Documents\\x/_blank)** which allows you to add external contacts to your directory. These external contacts will then be presented to your users in services such as Gmail when completing addresses.

In addition to using the API directly to create your external contacts you can also use GCDS. There are also a number of third party apps available which will add this information to your directory.

****Notes****

Each user can also manage their own personal contacts list where they can add external recipient information.

****Help Center resources****

* [Add shared contacts to the Directory](https://support.google.com/a/answer/9281635" \o "Add shared contacts to the Directory" \t "/home/sherwinowen/Documents\\x/_blank)

**You can add external contacts to your Directory in 3 ways:**

* **Domain Shared Contacts API**—For admins who are comfortable with using SDKs. Use these APIs to add, edit, and delete external contacts. Before working with APIs, you need to enable APIs access. You should also be familiar with protocol basics. Once you're comfortable with APIs, use the code libraries for reference.
* **G Suite Marketplace apps**—For admins who want a user interface that doesn't require programming. Search for “shared contacts.”
* **Google Cloud Directory Sync** —For admins who want to synchronize external contacts from a Microsoft Active Directory or LDAP server. Sync your shared contacts.

**INTRODUCTION TO ADMINISTRATOR ROLES**

## **Admin Roles Overview**

****Introduction****

Administrator roles give a user privileges to manage another user's access to G Suite or to perform actions that affect the setup of your organization's G Suite account. You can make a user either a super administrator with complete access to the G Suite account, or you can assign a role that limits which administrative tasks the user can perform.

****Help Center resources****

* [Pre-built administrator roles](https://support.google.com/a/answer/2405986" \t "/home/sherwinowen/Documents\\x/_blank)
* [Assign administrator roles to a user](https://support.google.com/a/answer/172176" \t "/home/sherwinowen/Documents\\x/_blank)
* [Create custom administrator roles](https://support.google.com/a/answer/2406043" \t "/home/sherwinowen/Documents\\x/_blank)
* [Administrator privilege definitions](https://support.google.com/a/answer/1219251" \t "/home/sherwinowen/Documents\\x/_blank)

## **Exercise #1 - Add a new Super Administrator**

****Introduction****

In this exercise, you'll grant the 'Super Admin' role to Alex Bell, the IT Manager. This is an example of a pre-built administrator role that's standard on all G Suite accounts.

****Instructions****

1. If you are not already signed in, sign in to your domain as the administrator at [admin.google.com](https://admin.google.com/" \t "/home/sherwinowen/Documents\\x/_blank).

2. Click the ****Users**** icon.

3. Locate Alex Bell in the user list and click to enter his account page.

4. Scroll down and select the ****Admin roles and privileges category**** card. Alex currently has no Admin roles assigned to him.

5. Click ****ASSIGN ROLES****.

6. Click the slider for the predefined 'Super Admin' role and then click ****SAVE****. You should now see the role has now been assigned to Alex.

Now let’s investigate the specific privileges you have granted to Alex.

7. Return to the admin console home page click the ****Admin roles**** icon.

8. Click the ****Super Admin**** link on the left to view the current users with this role. At this point, this should only be your initial administrator account, plus Alex.

Each pre-built role has a specific set of privileges assigned to it. Super Admin’s have all privileges to the entire organization. Let’s look at another pre-built role and the privileges that are assigned.

9. Return the list of Admin roles and click ****Help Desk Admin.****Then click on the ****Privileges**** card and review the assigned privileges. Notice how these administrators can see the organizational structure and have the 'Read' and 'Reset passwords' privileges for users only.

****Notes****

1. Privileges assigned to pre-built roles cannot be customized.
2. You can assign an administrator role to a user on the user's account information page, or from the Admin roles page where you define the administrator roles.
3. Creating more than three super administrators for your domain can affect some recovery options. See [Add recovery options to your administrator account](https://support.google.com/a/answer/3033063" \t "/home/sherwinowen/Documents\\x/_blank) for more details.

****Help Center resources****

* [Assign administrator roles to a user](https://support.google.com/a/answer/172176" \o "Assign administrator roles to a user" \t "/home/sherwinowen/Documents\\x/_blank)

## **Exercise #2 - Create and Assign a Custom Role**

****Introduction****

In this exercise, you will create an admin role that has a custom set of privileges.

****Scenario****

You receive a request from the Human Resources Manager, Lars Ericsson.

Hello G Suite Admin,

I would like to understand more about how our users are interacting with G Suite. That way I can create a customized training plan for the company. Is there any way I can run reports that track apps usage and user behaviors?

Regards, Lars Ericsson

You decide that, rather than giving him a pre-built role with privileges he doesn't need, it's best to create a custom role. That way you can delegate the ability to run reports, but not give Lars any other administrator privileges.

****Directions****

1. If you are not already signed in, sign in to your domain as the administrator at [admin.google.com](https://admin.google.com/" \t "/home/sherwinowen/Documents\\x/_blank).

2. Click the ****Admin roles**** icon.

3. Click ****CREATE A NEW ROLE****.

4. Enter a name for the role, e.g: Reporting Role, optionally enter a description, and click ****CONTINUE****. You will now assign privileges to the new role.

5. You want this custom role to have reporting privileges only so scroll down to the Security category and check the ****Reports**** box. Then click ****CONTINUE****.

6. Click ****CREATE ROLE****.

7. Click ****Assign role**** and add Lars Ericsson to the user list. Then click ****ASSIGN ROLE****. Lars should now appear in the list of users with the new role.

Congratulations! You've now built and assigned a custom administrator role to one of your users, which allows you to better delegate administrator tasks in your domain.

****Notes****

1. You can assign more than one administrator role to a user. Creating multiple roles with fewer privileges is, therefore, more versatile than one role with many privileges. If a user handles multiple tasks, just assign multiple roles.
2. Assigning a custom role to a user grants them access to the Admin console. The privileges determine which dashboard controls are in their console, what information the user can access, and which management tasks they can perform. Learn more about[administrator privilege definitions](https://support.google.com/a/answer/1219251" \t "/home/sherwinowen/Documents\\x/_blank).

****Help Center resources****

* [Create custom administrator roles](https://support.google.com/a/answer/2406043" \o "Create custom administrator roles" \t "/home/sherwinowen/Documents\\x/_blank)