# IAM user groups

An IAM user group is a collection of IAM users. User groups let you specify permissions for multiple users, which can make it easier to manage the permissions for those users. For example, you could have a user group called *Admins* and give that user group typical administrator permissions. Any user in that user group automatically has *Admins* group permissions. If a new user joins your organization and needs administrator privileges you can assign the appropriate permissions by adding the user to the *Admins* user group. If a person changes jobs in your organization, instead of editing that user's permissions you can remove him or her from the old user groups and add him or her to the appropriate new user groups.

Here are some important characteristics of user groups:

* A user group can contain many users, and a user can belong to multiple user groups.
* User groups can't be nested; they can contain only users, not other user groups.
* There is no default user group that automatically includes all users in the AWS account. If you want to have a user group like that, you must create it and assign each new user to it.
* The number and size of IAM resources in an AWS account, such as the number of groups, and the number of groups that a user can be a member of, are limited. For more information, see [IAM and AWS STS quotas](https://docs.aws.amazon.com/IAM/latest/UserGuide/reference_iam-quotas.html).

The following diagram shows a simple example of a small company. The company owner creates an Admins user group for users to create and manage other users as the company grows. The Admins user group creates a Developers user group and a Test user group. Each of these user groups consists of users (humans and applications) that interact with AWS (Jim, Brad, DevApp1, and so on). Each user has an individual set of security credentials. In this example, each user belongs to a single user group. However, users can belong to multiple user groups.


      Example of relationship between AWS accounts, users, and user groups
    