

## Steps to Prepare Development Environment:

### 1. Create a Google Cloud Platform Project:

- If you don't have one, create a project on the Google Cloud Platform.

### 2. Ensure Python 2.7 Installation:

- Check if Python 2.7 is installed on your system by running `python -V`.
- Note: Cloud SDK requires Python 2.7, but there's experimental support for Python 3.4+ for some tools.

### 3. Download and Extract Cloud SDK:

- Download the appropriate archive for your operating system.
- Extract the archive to your preferred location using `tar zxvf [ARCHIVE_FILE]`.

### 4. Configure Path and Install Cloud SDK:

- If needed, adjust your `$PATH` variable to include Cloud SDK tools.
- Optionally, run the install script using `./google-cloud-sdk/install.sh`.
- Restart your terminal for changes to take effect.

## Initializing the SDK:

### 1. Run Initialization Command:

- Execute `gcloud init` at the command prompt.
- To prevent launching a web browser, use `gcloud init --consoleonly`.
- For non-interactive authorization, create a service account and activate it using `gcloud auth activate-service-account`.

### 2. Authenticate with Google Account:

- Follow the prompts to log in with your Google user account.
- Grant permission to access Google Cloud Platform resources when prompted.

### 3. Select Cloud Platform Project:

- Choose a project from the list where you have appropriate permissions.
- If only one project is available, it will be automatically selected.

### 4. (Optional) Choose Compute Engine Zone:

- If Google Compute Engine API is enabled, select a default zone.

### 5. Confirmation:

- Upon completion, `gcloud` confirms successful setup.

## Core gcloud Commands:

### 1. List Authenticated Accounts:

- View accounts with stored credentials using `gcloud auth list`.

### 2. List Properties in Active SDK Configuration:

- Display properties in the active SDK configuration with `gcloud config list`.

### 3. View SDK Installation and Configuration Information:

- Get a summary of Cloud SDK installation and configuration with `gcloud info`.

### 4. Access Help Documentation:

- Explore gcloud commands and topics using `gcloud help`.
- For specific commands, use `gcloud help [COMMAND]`.

## Running a Program:

### 1. Clone Sample Code:

- Clone the Python sample code repository using `git clone https://github.com/GoogleCloudPlatform/python-docssamples`.

### 2. Navigate to Sample Directory:

- Change directory to the location of the sample app, typically `cd python-docssamples/appengine/standard/hello_world`.

### 3. Run the Development Server:

- Start the development server by running `dev_appserver.py app.yaml`.

These steps should help you set up your development environment and run your application on Google Cloud Platform.