

## Authentication

Task	Command
Login to Dev Hub (web)	<code>sf org login web --set-default-dev-hub</code>
Login to any Org (web)	<code>sf org login web</code>
Login using JWT (CI/CD)	<code>sf org login jwt --client-id &lt;id&gt; --jwt-key-file &lt;file&gt; --username &lt;username&gt;</code>
List authorized orgs	<code>sf org list</code>
Logout from an org	<code>sf org logout --target-org &lt;alias&gt;</code>

## Scratch Org Management

Task	Command
Create a scratch org	<code>sf org create scratch --definition-file config/project-scratch-def.json --set-default</code>
Delete a scratch org	<code>sf org delete scratch --target-org &lt;alias&gt;</code>
Open a scratch org	<code>sf org open</code>
View active scratch orgs	<code>sf org list scratch</code>

## Source Operations

Task	Command
Push source to scratch org	<code>sf project deploy start</code>
Pull source from scratch org	<code>sf project retrieve start</code>
Deploy source to org (any)	<code>sf project deploy start --target-org &lt;alias&gt;</code>
Retrieve source from org	<code>sf project retrieve start --target-org &lt;alias&gt;</code>
Check deploy status (async)	<code>sf deploy report --job-id &lt;id&gt;</code>

## Apex Operations

Task	Command
Run anonymous Apex	<code>sf apex run --file &lt;file&gt;</code>
Execute SOQL query	<code>sf data query --query "SELECT Id, Name FROM Account"</code>
Run Apex tests	<code>sf apex test run --target-org &lt;alias&gt; --result-format human --code-coverage</code>
View Apex test results	<code>sf apex test report --test-run-id &lt;id&gt;</code>

## Metadata Deployment (MDAPI)

Task	Command
Convert SFDX → MDAPI	<code>sf project convert source --output-dir mdapi_output</code>
Deploy MDAPI	<code>sf deploy metadata --target-org &lt;alias&gt; --metadata-dir mdapi_output</code>
Retrieve metadata	<code>sf retrieve metadata --target-org &lt;alias&gt; --metadata &lt;type&gt;:&lt;name&gt;</code>

## Data Management

Task	Command
Import data (CSV)	<code>sf data import --plan &lt;data-plan.json&gt;</code>
Export data (SOQL)	<code>sf data export --query "SELECT Name FROM Contact"</code>
Insert record	<code>sf data record create --subject &lt;Object&gt; --values "&lt;field&gt;=&lt;value&gt;"</code>
Update record	<code>sf data record update --subject &lt;Object&gt; --record-id &lt;id&gt; --values "&lt;field&gt;=&lt;value&gt;"</code>
Delete record	<code>sf data record delete --subject &lt;Object&gt; --record-id &lt;id&gt;</code>

## Project Setup & Plugins

Task	Command
Create a new project	<code>sf project generate --name myProject</code>
Install plugin	<code>sf plugins install &lt;plugin-name&gt;</code>
Update plugins	<code>sf update</code>
List plugins	<code>sf plugins</code>

## Miscellaneous

Task	Command
View current user/org info	<code>sf org display</code>
Set default org	<code>sf config set target-org=&lt;alias&gt;</code>
Clear default org	<code>sf config unset target-org</code>
Check CLI version	<code>sf --version</code>
Help for any command	<code>sf &lt;command&gt; --help</code>