



Essential CLI Commands

Setup Commands

<code>setup:upgrade</code>	Upgrades Magento modules and database schema.
<code>setup:di:compile</code>	Compiles dependency injection configurations.
<code>setup:static-content:deploy</code>	Deploys static view files.
<code>setup:cache:clean</code>	Cleans Magento cache.
<code>setup:cache:flush</code>	Flushes Magento cache storage.
<code>setup:config:set</code>	Sets configuration values.

Cache Management

<code>cache:enable</code> [types]	Enables specified cache types.
<code>cache:disable</code> [types]	Disables specified cache types.
<code>cache:status</code>	Shows the status of Magento cache types.

Index Management

<code>indexer:reindex</code> [index]	Reindexes specified indexes.
<code>indexer:info</code> [index]	Shows information about indexes.
<code>indexer:reset</code> [index]	Resets indexes.
<code>indexer:status</code> [index]	Shows the status of indexes.

File System

Directory Structure

<code>app/code</code>	- Custom modules.
<code>app/design</code>	- Custom themes.
<code>vendor</code>	- Composer dependencies.
<code>pub/static</code>	- Static files (CSS, JS, images).
<code>var</code>	- Cache, logs, sessions.
<code>generated</code>	- Generated classes (proxies, factories).

File Permissions

Set file permissions to <code>777</code> for the <code>var</code> , <code>pub/static</code> , <code>generated</code> directories during development. <code>chmod -R 777 var pub/static generated</code>
For production environments, follow Magento's official security guidelines for file permissions.

Code Snippets

Object Manager

<pre>\$objectManager = \Magento\Framework\App\ObjectManager::getInstance(); \$product = \$objectManager->get('Magento\Catalog\Model\Product')->load(1);</pre>
Note: Avoid using Object Manager directly in your code. Use dependency injection instead.

Dependency Injection

<pre>/** * @param \Magento\Catalog\Model\Product \$product */ public function __construct(\Magento\Catalog\Model\Product \$product) { \$this->product = \$product; }</pre>

Events

<p>Example of dispatching an event:</p> <pre>\$this->eventManager->dispatch('custom_event', ['data' => \$data]);</pre>
<p>Example of listening to an event, in <code>events.xml</code>:</p> <pre><event name="custom_event" observer="CustomModule\Observer\CustomObserver" /></pre>

Database Operations

Resource Model

<pre>\$resource = \$this->getResource(); \$connection = \$resource->getConnection(); \$select = \$connection->select() ->from(\$resource->getTableName('your_table')) ->where('field = ?', \$value); \$result = \$connection->fetchRow(\$select);</pre>

InstallSchema

<p>Example of creating a table in <code>InstallSchema.php</code>:</p> <pre>\$table = \$setup->getConnection()->newTable(\$setup->getTable('your_table'))->addColumn('id', \Magento\Framework\DB\Ddl\Table::TYPE_INTEGER, null, ['identity' => true, 'nullable' => false, 'primary' => true], 'ID'); \$setup->getConnection()->createTable(\$table);</pre>
