

Environment Run Modes

Agenda:

- Supported Run Modes for Adobe Experience Manager (AEM) as a Cloud Service
- Starting AEM with a desired Run Mode
- Creating a configuration for the publish Run Mode
- ACS Commons
- Deploying the ACS Commons package to a specific AEM environment type



Run modes overview

- Can be used to meet specific environment needs
- Are typically defined to include the service or tier and the environment
- Tier run modes
 - Author and publish run modes are mutually exclusive
 - Tier run modes are set at installation time and cannot be changed
- Environment run modes
 - Dev, stage, prod

Run modes and configuration folders

Run mode folders can:

- Reference tier (author, publish) and/or environment (dev, stage, prod) for the service
- Be used for OSGi config or install folders

```
config
config.<tier>
config.<tier>.<environment>
config.<environment>
```

Supported formats
for OSGi
configuration run
mode folders

```
install
install.<tier>
install.<tier>.<environment>
```

Supported formats
for Content
Package run mode
folders

```
install
install.<tier>
```

OSGi bundles run
modes are limited
to the tier

How are run modes applied

Applied to all AEM instances

Applied to all AEM author instances

Applied to all AEM author,dev instances

Applied to all AEM publish instances

Applied to all AEM publish,dev instances



Multiple configurations for the same PID: Example

An instance was started with:

- -r author,dev

The following configurations are defined:

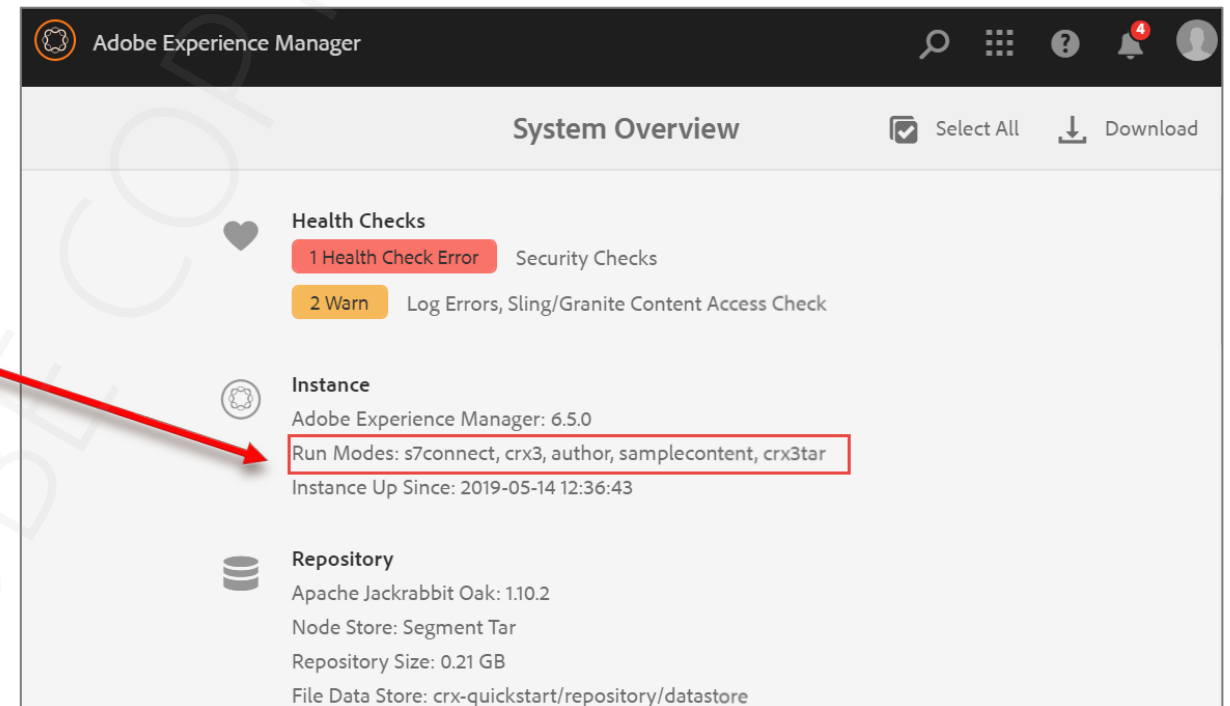
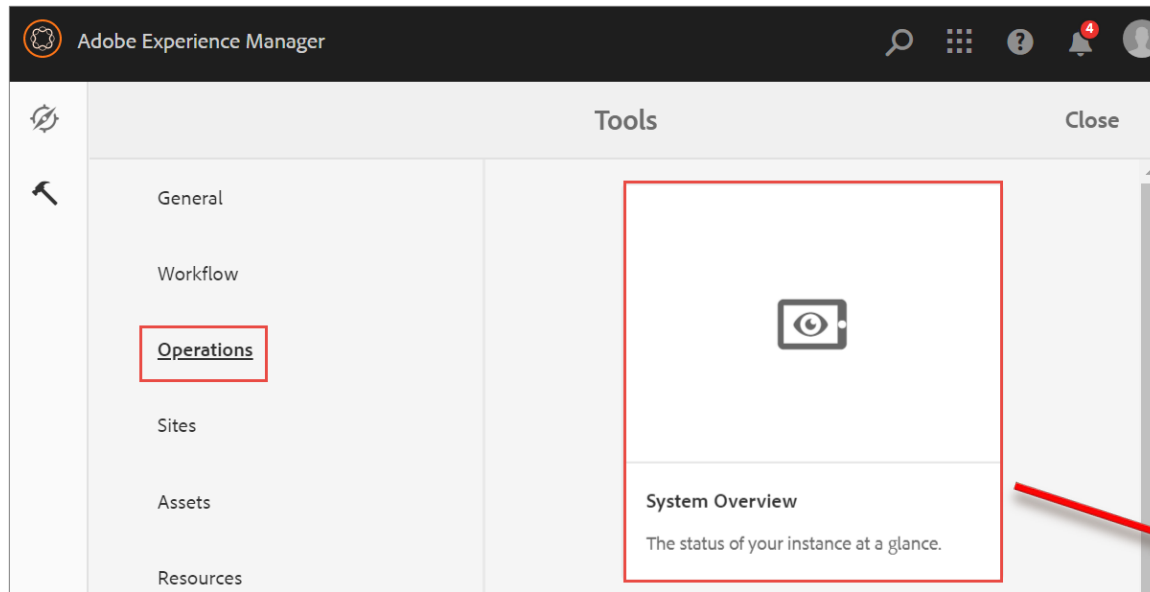
- /apps/*/config.author
`com.day.cq.wcm.core.impl.VersionManagerImpl`
- /apps/*/config.author.dev
`com.day.cq.wcm.core.impl.VersionManagerImpl`

The config in /apps/*/config.author.dev will be applied.

This is because the config with the highest number of matching run modes is applied.

Viewing current run modes

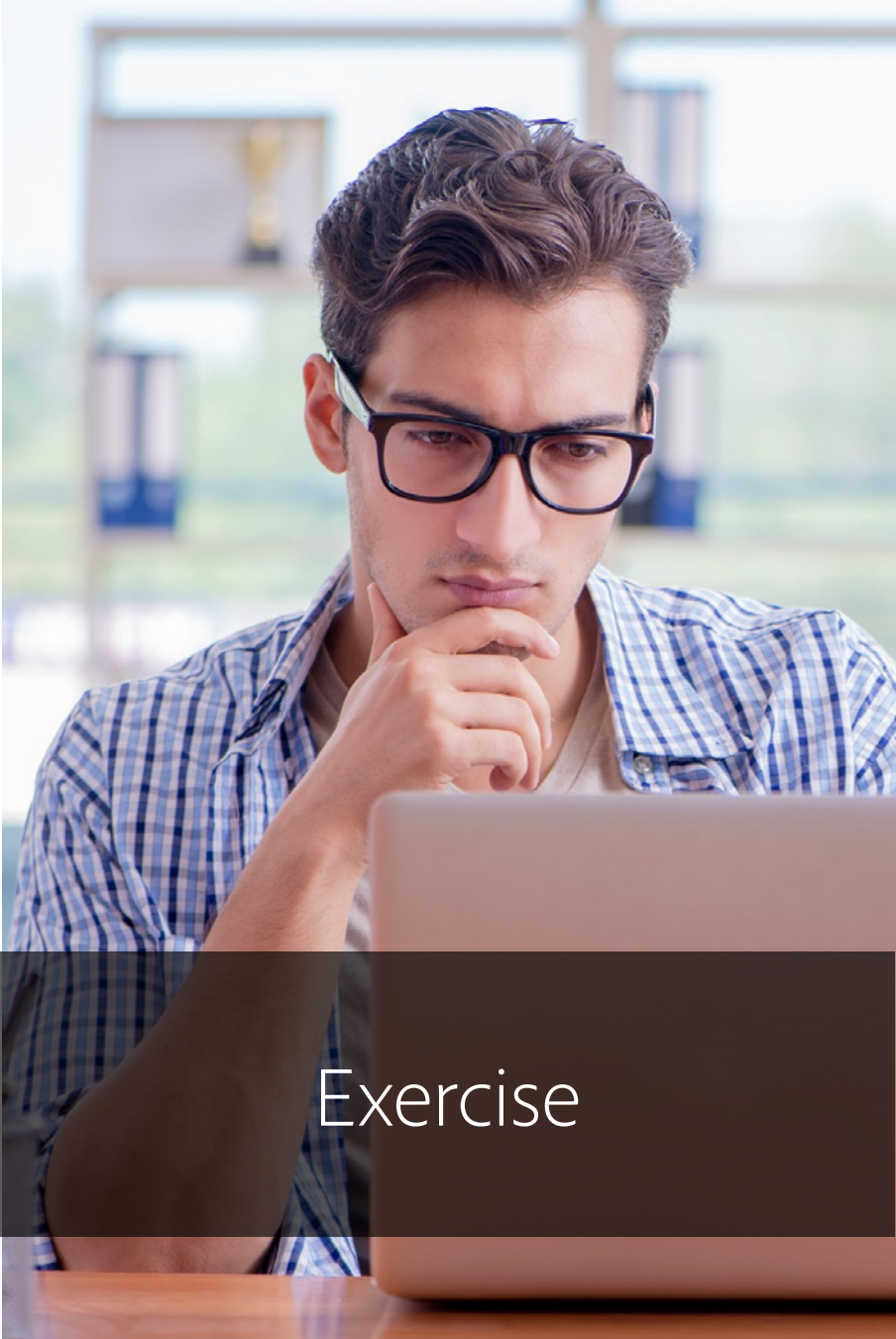
Tools > Operations > System Overview



Note: you can only access this console locally

Deploying configurations to multiple environments

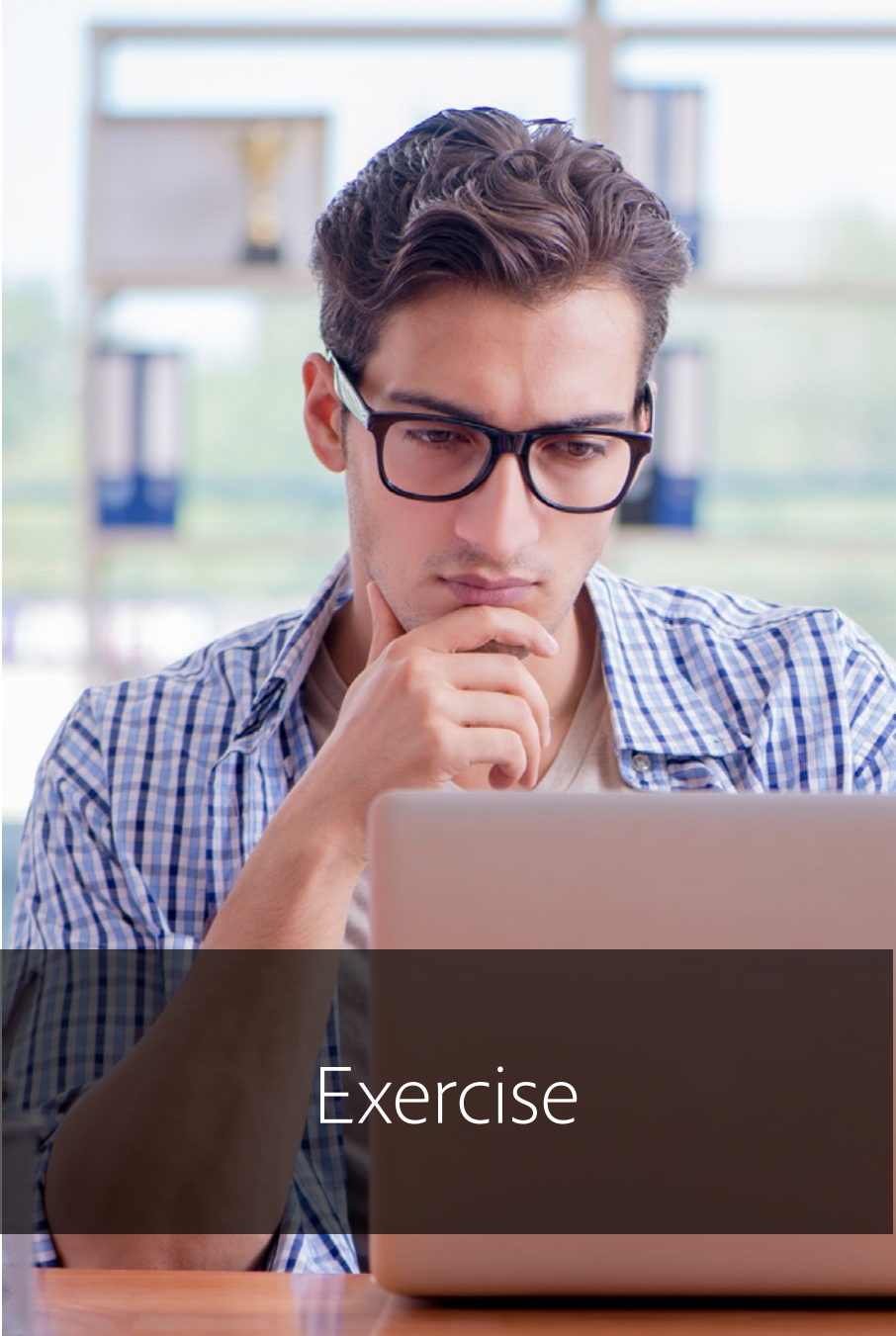




Exercise

Exercise 1: Run an AEM service with the 'dev' run mode

Scenario: In order to test code behavior on an AEM as a Cloud Service developer environment, a developer wants to start local AEM author and publish instances with the 'dev' run mode.



Exercise

Exercise 2: Create Runmode-specific configs

Scenario: A developer wants to define the root mapping for author instances running in the development environment to be the Projects root folder.

Tasks to perform:

1. Examine runmode-specific config folders created by Maven AEM project Archetype
2. Verify the configured value of Day CQ Root Mapping
3. Create Run Mode-specific configurations
4. Deploy and validate the configuration

ACS Commons

A way to bootstrap AEM projects:

- Common functionality
- Set of reusable components
- AEM development toolkit

ACS Commons is not a:

- Framework
- Library with required third-party dependencies
- Library that changes standard AEM functionality by default

ACS AEM Commons

The wheel doesn't need reinventing

Use Maven to include ACS Commons into project – devops -training > all > pom.xml

```
223
224     <!--ACS Commons dependencies -->
225     <dependency>
226         <groupId>com.adobe.acs</groupId>
227         <artifactId>acs-aem-commons-ui.content</artifactId>
228         <version>4.7.2</version>
229         <type>zip</type>
230         <classifier>min</classifier>
231     </dependency>
232
233     <dependency>
234         <groupId>com.adobe.acs</groupId>
235         <artifactId>acs-aem-commons-ui.apps</artifactId>
236         <version>4.7.2</version>
237         <type>zip</type>
238         <classifier>min</classifier>
239     </dependency>
240 </dependencies>
```

ui.content and ui.apps dependencies

Support for oak:index ACLS

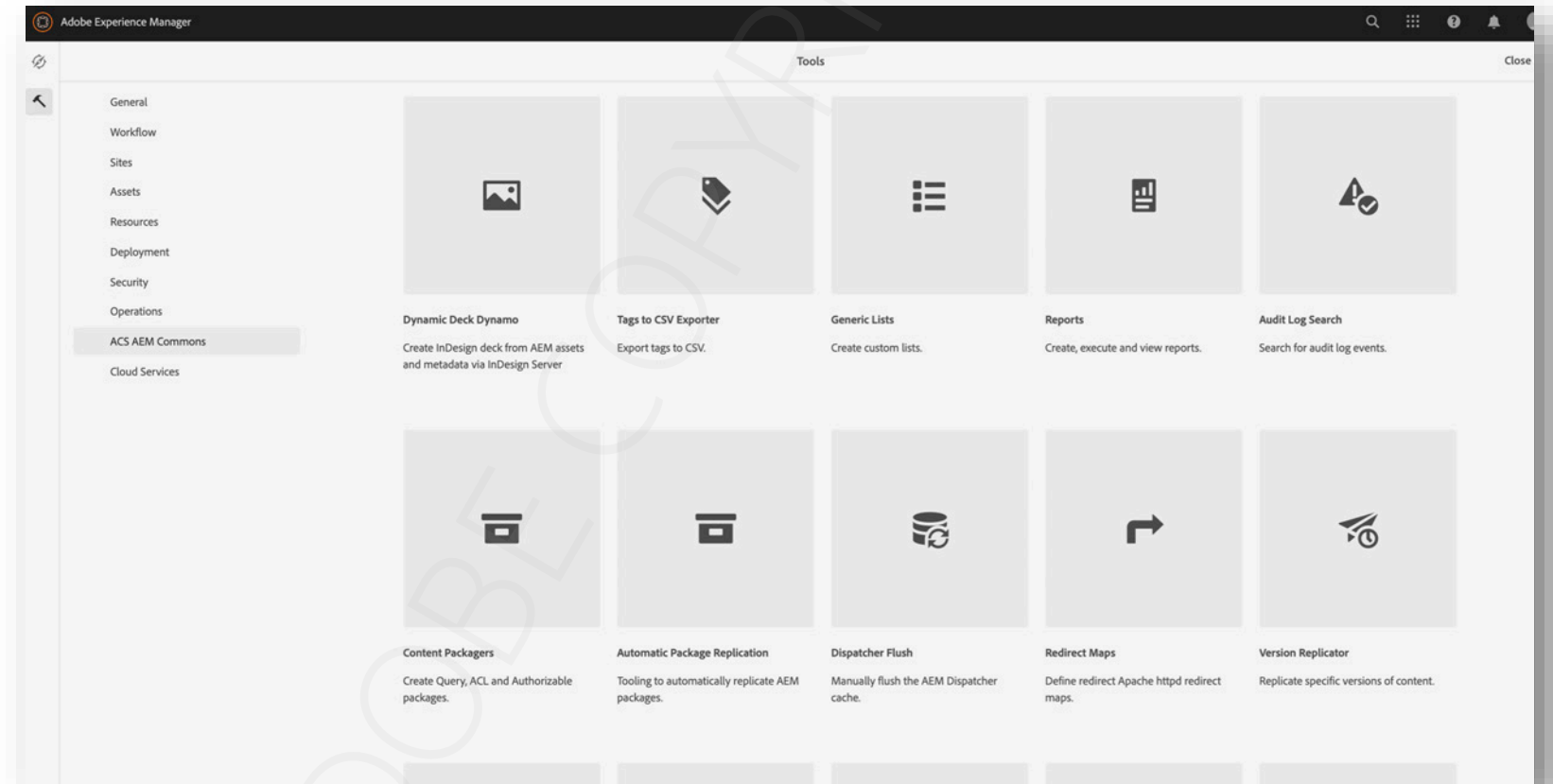
```
49
50
51
52     <!-- =====>
53     <plugin>
54         <groupId>org.apache.jackrabbit</groupId>
55         <artifactId>filevault-package-maven-plugin</artifactId>
56         <extensions>true</extensions>
57         <configuration>
58             <!-- allowIndexDefinitions is required as acs-aem-commons deploys
59             ACLs to /oak:index which is detected as an "index definition",
60             even though it's not really an oak index definition -->
61             <allowIndexDefinitions>true</allowIndexDefinitions>
62
63             <group>com.adobe.training</group>
64             <embedded>
```

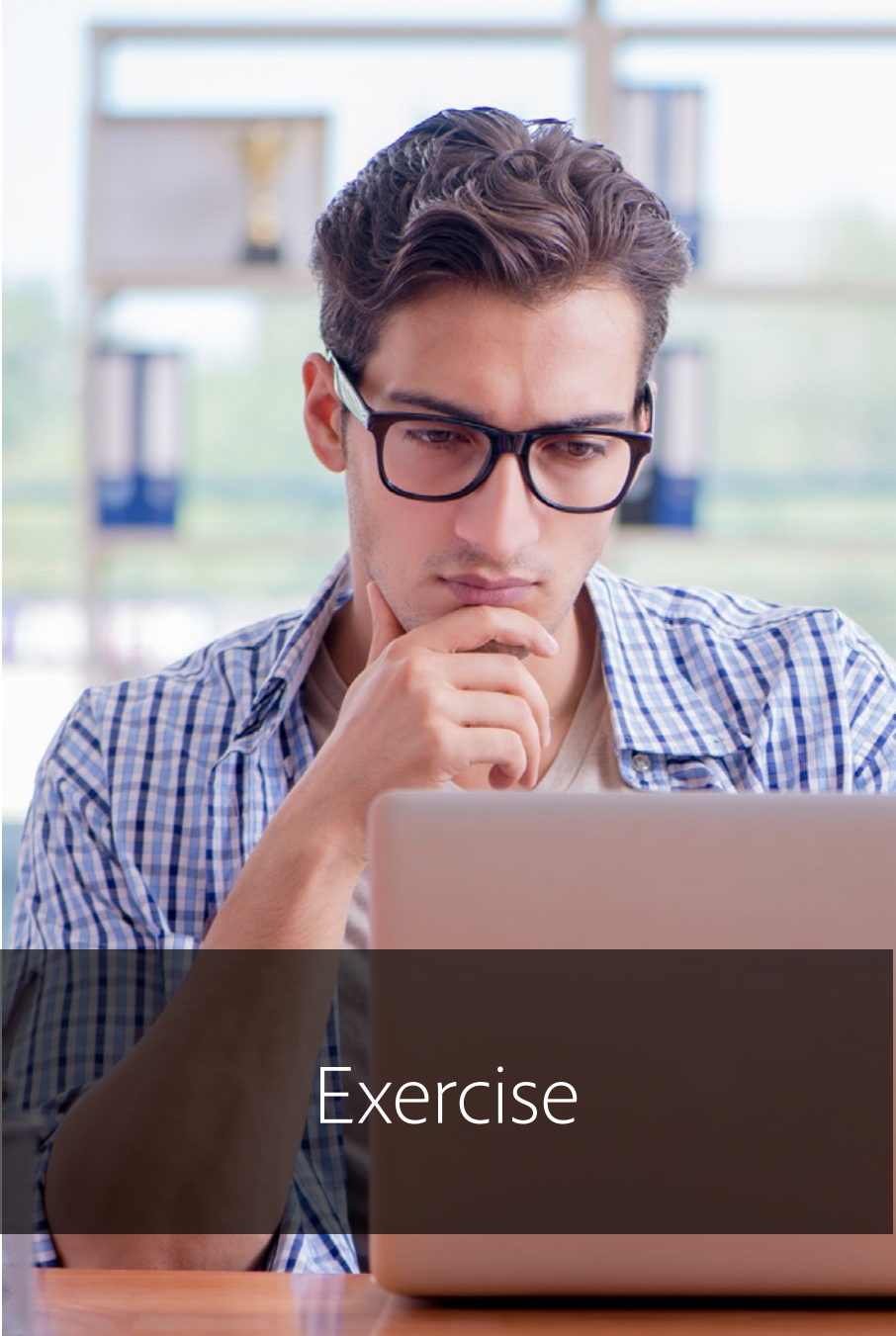
```
65         </embedded>
66     </plugin>
67
68     <!--ACS Commons embeddeds -->
69     <embedded>
70         <groupId>com.adobe.acs</groupId>
71         <artifactId>acs-aem-commons-ui.apps</artifactId>
72         <type>zip</type>
73         <target>/apps/training-vendor-packages/application/install.author.dev</target>
74     </embedded>
75     <embedded>
76         <groupId>com.adobe.acs</groupId>
77         <artifactId>acs-aem-commons-ui.content</artifactId>
78         <type>zip</type>
79         <target>/apps/training-vendor-packages/content/install.author.dev</target>
80     </embedded>
81 </embedded>
82 <subPackages>
```

Target paths for embedded packages

ACS Commons console

Tools > ACS Commons





Exercise

Exercise 3: Install ACS Commons for the dev environment

Scenario: Few developers are interested in exporting the AEM taxonomy as a CSV file. They have searched for a tool to make the job easier. They found the Tag to CSV Exporter tool in ACS Commons.

Tasks to perform:

1. Include ACS project configuration and dependencies into the AEM project pom files
2. Install and validate ACS Commons



Key takeaways

- Run modes enable you to define specific AEM behaviors for different types of AEM instances
- OSGi Configuration definitions are stored in config folders matching the desired run mode
- All configuration definitions are stored in the repository and activated by setting the appropriate run mode.
- If multiple configurations for the same PID are applicable, the configuration with the highest number of matching run modes is applied.
- You can check the run modes of any local instance by navigating to **Tools > Operations > System Overview**