Section 8: Automation Scripts in Maximo

Q1. What is an Automation Script in Maximo?
Answer:
Automation Scripts are lightweight scripts in Jython (Python for Java) or JavaScript that allow you to customize Maximo without deploying Java code.
They are stored inside Maximo and executed on specific events (field change, save, workflow, integration, etc.).
Benefit: Faster development & deployment, no EAR rebuild.

Q2. What are the launch points for Automation Scripts?
Answer:
1. Object Launch Point - Triggered on database object events (Add, Update, Delete, Save).
2. Attribute Launch Point - Triggered when an attribute (field) is accessed, validated, or modified.
3. Action Launch Point - Triggered by an Action (used in Escalations/Workflows).
4. Cron Task Launch Point - Triggered on schedule.
5. Integration Launch Point - Triggered during inbound/outbound MIF messages.
6. Script with No Launch Point - Can be invoked programmatically from other scripts.

Q3. What scripting languages are supported in Maximo?
Answer:
- Jython (most commonly used, 90% projects)
- JavaScript
- Python (limited)
- Rhino-based scripting engine for Java integration

Q4. What are the advantages of Automation Scripts over Java customization?
Answer:
- No EAR rebuild or downtime
- Faster deployment & easier debugging
- Less dependency on developers (admins can write scripts)
- Easier to migrate (export/import scripts)

Q5. Example of an Object Launch Point script:
Scenario: Auto-populate the Reported By field with the logged-in user on Work Order creation.

```
from psdi.server import MXServer
mbo.setValue("REPORTEDBY", mbo.getUserInfo().getUserName())
```

Q6. Example of an Attribute Launch Point script:
Scenario: Validate that Work Order Priority must be between 1 and 5.

```
priority = mbo.getInt("WOPRIORITY")
if priority < 1 or priority > 5:
    errorgroup = "workorder"
    errorkey = "priorityinvalid"
```

Q7. Example of an Action Launch Point script:
Scenario: Send notification when WO status changes to APPR.

```
if mbo.getString("STATUS") == "APPR":
    service.log("Work Order approved: " + mbo.getString("WONUM"))
    # Can add email sending logic here
```

Q8. Example of a Cron Task Launch Point script:
Scenario: Close all completed Work Orders older than 30 days.

```
from psdi.server import MXServer
from java.util import Date
from java.util import Calendar

mxServer = MXServer.getMXServer()
userInfo = mxServer.getSystemUserInfo()
woSet = mxServer.getMboSet("WORKORDER", userInfo)

woSet.setWhere("status='COMP' and statusdate < (current_date - 30)")
woSet.reset()

wo = woSet.moveFirst()
while wo:
    wo.setValue("STATUS", "CLOSE")
    wo = woSet.moveNext()

woSet.save()
```

Q9. How do you debug Automation Scripts?
Answer:
- Use service.log("message") to log into SystemOut.log
- Use exception handling (try-except) to capture errors
- Always test in lower environments before PROD

Q10. How do you migrate Automation Scripts between environments?
Answer:
- Export script as XML via Migration Manager
- Or manually copy from AUTOSCRIPT and AUTOSCRIPTLAUNCHPOINT tables
- Import in target environment and test

Q11. Can Automation Scripts be used with Integration (MIF)?
Answer:
Yes. You can write Integration Launch Point scripts to manipulate inbound/outbound data.
Example: Before sending Work Order to SAP, change status format or field name.

Q12. Real-time Automation Script Scenario:
Sample Answer:
Yes. In my current project, I wrote an Attribute Launch Point script for validating Asset Serial Numbers.
Requirement: Serial number must always start with the prefix 'AS-'.
Script checked the value entered in the SERIALNUM field and raised an error if it didn't match.
This ensured data quality and avoided issues during integration with the ERP system.
Additionally, I worked on an Object Launch Point script to automatically set Target Finish Date = Start Date + 7 days when a Work Order is created.