Adobe AEM Forms Developer

Adobe Certified Expert Exam Guide

Exam number: 9A0-410

About Adobe Certified Expert Exams

To be an Adobe Certified Expert is to demonstrate expertise in helping clients realize value in an Adobe solutions.

Adobe's Certification exams follow industry-accepted procedures to ensure validity and reliability. We work with industry experts to create our exams, which represent real-world requirements and objectives for the job roles we certify.

This guide is designed to provide the recommendations needed to prepare for your Adobe Certified Expert exam, and help you determine when you are ready to take the exam. It will outline the knowledge and skills required of a "minimally qualified candidate" for a specific job role, which will be evaluated in the exam.

How is the AEM Forms Developer Exam Structured?

- Number of questions: 80

- Time limit: 95 minutes
- Passing score: All Adobe exams are reported on a scale of 300 to 700. The passing score for each exam is 550. For more information about scaled scoring, visit the FAQs.

How Do I Register for the Exam?

Our exams are delivered worldwide by PSI.
- Exam name: Adobe AEM Form Developer

- Exam number: 9A0-410

- Exam cost: $180 (US Dollars)

To register for the exam at a PSI testing center:

1. Visit Adobe's credential management system logon page. The logon requires that you have an Adobe ID. If you do not have an Adobe ID, click the link for "Get an Adobe ID"

2. After logging on, If you have never taken an Adobe exam before, you will be instructed to create a Profile. After creating your Profile, you will be instructed to update your opt-in Settings..

3. Once logged on, click "Home" then click "Schedule your exam at PSI."

4. You will be directed to a new page within CertMetrics where you will click "Click here to log in to PSI."

5. You will be taken to a page hosted by our exam delivery vendor, PSI, that displays the available exams

6. Scroll through the list of available exams and press the "Schedule Exam" button for the exam you want to take.

7. Select a delivery mode for your exam by choosing either "Test Center" or "Remote Online Proctored Exam."

8. Select your exam language to see options for your exam.

9. Select an available date and start time.

10. Confirm schedule details to receive a booking confirmation.

11. Proceed to payment.

12. After payment is successful, you will receive an email confirmation your registration details and a receipt.

What topics are covered on the Adobe AEM Forms Developer exam?

The tasks measured on the exam are grouped into the following domains:

- Complex form implementation
- Form submission handling
- Workflow implementation
- Correspondence management
- Testing and debugging
- Form portal configuration

Within each domain, there are specific tasks that you should be able to perform as an Adobe AEM Forms Developer:

- **Complex form implementation**
  You should be able to apply procedural concepts for developing Javascript code for complex form experiences, and to implement form sets, and to build an adaptive form or document, as well as manage XFA templates using Form Manager You should also be able to apply procedural concepts to render populated versions of HTML5 and PDF forms and to implement Form Sets in the application design. In addition, you should be able to retrieve the data and process the results when given an endpoint as well as identify the process to enable an environment for the integration of cloud services. Finally, you should be able to determine an adequate design for a form template given UX requirements.
- **Form submission handling**
  You should be able to determine an appropriate custom submit action given a use case, as well as recognize variables related to the generation of a document of record based upon form submission. You should also be able to apply procedural concepts to integrate with a back end system.
- **Workflow implementation**
  You should be able to determine appropriate parameters to configure OSGI watched folders for batch generation based on business requirements. You should also be able to determine appropriate document Services APIs and the corresponding process to create a solution given business requirements. In addition, you should be able to apply procedural concepts to configure a workbench endpoint as well as to build both an AEM and Workbench workflow to utilize document services given a use case.

- **Correspondence management**
  You should be able to determine correspondence management (CM) assets given a use case.
- **Testing and debugging**
  You should be able to diagnose and troubleshoot failures and errors.
- **Form portal configuration**
  You should be able to apply procedural concepts to implement and configure Forms Portal

        component.

Distribution of content covered on the exam:

The questions on the exam are distributed as follows for each domain. (Note: each question carries the same weight and there is no partial credit for any question)

Domain	Percent of Exam
Complex form implementation	42%
Form submission handling	18%
Workflow implementation	20%
Correspondence management	5%
Testing and debugging	10%
Form portal configuration	5%

The Adobe AEM Forms Developer job role

This exam is designed for individuals who are currently performing or have previous work experience with the job responsibilities of an Adobe AEM Forms Developer.

The Minimally Qualified Candidate

To pass the exam, you must possess the minimum level of knowledge, skills, and abilities required of an Adobe AEM Forms Developer, which are outlined below.

Adobe AEM Forms Developer you should be able to perform the following tasks without any assistance:

- Analyze detailed delivery requirements
- Implement AEM Forms document services (Document services include: DDX, AEM Forms Document Services APIs)
- Generate test plans or other items such as user acceptance testing
- Identify gaps where custom work is required by cooperatively working with the business owner and the forms designer
- Package and deploy the solution into different environments

You should also be familiar with Microsoft Excel, using a web browser, and working in the Microsoft Windows environment.

What is the typical job experience for minimally qualified candidates taking this exam?

A minimally qualified Adobe AEM Forms Developer typically has the following work experience:

- Minimum 1 year total CMS experience
- Minimum 1+ years' experience with CQ 5.x/AEM 6.x
- Minimum 2 years' as a Java developer
- Has an understanding of HTML, JSP, JSTL/tag library, JavaScript/jQuery, and client libraries
- Has an understanding of HTTP and REST, XML, and JSON
- Has an understanding of JCR, sling, and OSGi

What training is available to help me prepare for the exam?

Is training required?

You are not required to complete training before taking the exam; however, training can significantly increase your knowledge of and skills with Adobe AEM. It is important to note that training alone will not provide you with the knowledge and skills required to pass an exam. Successful, on-the-job experience is critical to providing you the knowledge needed to pass the exam.

Training for Adobe Partners

A variety of training and resources are available for Adobe Solution Partners. To access these resources, you will need to login to the [Solution Partner Portal](#) with your Adobe ID and visit the [Training landing page](#). From there you can select your solution of interest and access on-demand, instructor led, and onsite training options.

- On-demand Training: All Partners have access to on-demand training resources for sales, technical and delivery roles. This includes self-paced learning modules, eSeminar videos, quizzes, exams, and test outs to help measure comprehension - All at no cost!
- Virtual Instructor Led Training: Partners at the Business and above levels can access Virtual Instructor Led Training through the learning management system. These trainings are 100% subsidized.
- In-person Instructor Led Training: Partners also have access to training delivered through Adobe Digital Learning Services (ADLS). Adobe Digital Learning Services offers comprehensive, hands-on courses across all job roles. Learn from Adobe experts in a virtual classroom or live in-person at any Adobe training center globally. Courses come with a cost and Partners receive a discount (15-30%) based on their Partner level in the Solution Partner Program.
- On-site Training: Get your team up-to-speed quickly with on-site training where we can come to your location or you can bring your team to one of our training centers. Adobe Digital Learning Services offers flexible, convenient instructor-led training for teams virtually or in-person. Content can be customized to match your unique learning requirements.

Partners also have access to Certification Learner Journeys, Certification Paths, and free Certification Prep courses. Please visit the [Solution Partner Portal Certification page](#) to access these valuable resources.

Not registered for the Solution Partner Portal? Please follow [these instructions](#) to get registered.

Training Courses Available to the Public

The following courses are relevant to the Adobe AEM Forms Developer job role. Compare the course descriptions to your current knowledge and skill level to determine which courses are best for you. You can find a complete list of all Adobe training and tutorials [here](#):

How do I know if I am ready to take the exam?

Nothing can guarantee that you will pass your test, however; the more practical work experience you have and the more training you complete, the better your chances are to pass the test. Use the self-assessment preparation worksheet (below) to evaluate your level of readiness.

On-the-Job Experience

Since Adobe exams measure knowledge and skills for a specific job role, one of the best ways to prepare for the exam is to ensure you have the minimum work experience, as described in this guide.

Self-Assessment Preparation Worksheet

Use the following worksheet to review the exam topics, and assess your own readiness. If you need to prepare more for a certain topic, determine if you need training, on the-job-experience, or both.

Topic	Yes	No
Complex Form Implementation		
I can apply procedural concepts for developing Javascript code for complex form experiences		
I can retrieve the data and process the results given an endpoint		
I can identify the process to enable an environment for the integration of cloud services		
I can apply procedural concepts to implement form sets		
I can determine an adequate design for a form template given UX requirements		
I can apply procedural concepts to build an adaptive form or document		
I can apply procedural concepts to manage XFA templates using Form Manager		
I can apply procedural concepts to render populated versions of HTML5 and PDF forms		
I can apply procedural concepts to implement Form Sets in the application design		
Topic	**Yes**	**No**
Form submission handling		
I can determine an appropriate a custom submit action given a use case		
I can recognize variables related to the generation of a document of record based upon form submission		
I can apply procedural concepts to integrate with a back end system		
Topic	**Yes**	**No**
Workflow implementation		
I can determine appropriate parameters to configure OSGI based on business requirements		
I can determine appropriate document Services APIs and the corresponding process to create a solution given business requirements		
I can apply procedural concepts to configure a workbench endpoint		
I can apply procedural concepts to build both an AEM and Workbench workflow to utilize document services Given a use case		

Topic	Yes	No
Correspondence Management		
I can determine correspondence management (CM) assets given a use case		

Topic	Yes	No
Testing and debugging		
I can diagnose and troubleshoot failures and errors		

Topic	Yes	No
Form portal configuration		
I can apply procedural concepts to implement and configure Forms Portal component		

Sample questions

Try out these practice questions to get a feel for the types of questions on the exam. Please note that **your performance here does not indicate how you will do on the actual exam**. To fully prepare for the exam, closely review the topic areas and objectives in this Exam Guide. You will find the correct answers at the end of the exam guide.

1. **Which API should be used through JavaScript to invoke a web service from an Adaptive Form?**

    A. com.day.cq.wcm.webservicesupport

    B. guidelib.wsdlUtils.invokeWebService

    C. com.adobe.restservice

    D. com.day.cq.wcm.webservicesupport.impl.ReplicationEventListener

2. **Refer to the exhibit.**

```
<DDX xmlns="http://ns.adobe.com/DDX/1.0/">
    <PDF result="doc1.pdf">
        <Footer alternation="OddPages">
            <Right><StyledText><p>Page <_PageNumber/></p></StyledText></Right>
        </Footer>
            <TableOfContents maxBookmarkLevel="2" bookmarkTitle="Table of Contents" includeInTOC="true"/>
            <PDF source="doc1" bookmarkTitle="Chapter 1"/>
            <PDF source="doc2" bookmarkTitle="Chapter 2"/>
            <PDF source="doc3" bookmarkTitle="Chapter 3"/>
    </PDF>
</DDX>
```

    A custom process is developed to accept an 'AssemblerResult' from another process. The DDX file used to produce that result contains <PDF result="doc1.pdf">. Which logical name should be used to retrieve the document from the 'AssemblerResult'?

    A. PDF result

    B. doc1.pdf

    C. doc1

    D. result

3. **A form set is being implemented. Which variable input type is needed to post to a process endpoint?**

    A. Process input variable type is list<string>

    B. Whichever variables are set within the "Guide LiveCycle Process Locator and Invoker"

    C. Process input variable type is a map<string>

    D. Process input variable type is XML<string>

4. **Which statement supports the ability to retrieve XML data from an Adaptive Form?**

    A. guideBridge.retrieveXMLData()

    B. getDataXML.guideBridge.(options)

    C. getDataXML()

    D. guideBridge.getDataXML(options)

5. **When designing a document of record to be generated automatically, which name should be used to indicate the root subform?**

    A. AF_MASTERPAGE
    B. AF_METATEMPLATE
    C. DOR_METATEMPLATE
    D. DOR_FIELDSUBFORM

6. **A developer omits the 'Version' request parameter when calling a Workbench SOAP endpoint. What is the result?**

    A. The first version of the process is invoked
    B. The latest 'Major Version' of the process is invoked
    C. The service using the legacy process interpreter is invoked
    D. The latest version of the process is invoked

7. **Which service produces a PDF/A document from a completed PDF?**

    A. PDF Generator
    B. Forms
    C. Output
    D. Document Assurance

8. **Where should a developer import a Correspondence Management solution into AEM 6.2?**

    A. Assets
    B. Forms
    C. CRX Package Manager
    D. Felix Console

9. **A developer creates and deploys a Servlet as part of a Java Project named MyProject. The Servlet returns an error code when accessed. Which log file should the developer check for errors?**

    A. The application server log
    B. error.log under crx
    C. project-myproject.log under crx
    D. myproject.log under crx

10. **Which two out-of-the-box components are packaged with Forms Portal?**

    A. Document Fragment and Document Fragment Group
    B. Adaptive Form Header and Adaptive Form Footer
    C. Summary and Terms and Conditions
    D. Document Services and Document Services Predicates

Answer key

Try out these practice questions to get a feel for the types of questions on the exam. Please note that **your performance here does not indicate how you will do on the actual exam**. To fully prepare for the exam, closely review the topic areas and objectives in this Exam Guide. You will find the correct answers at the end of the exam guide.

1. **Which API should be used through JavaScript to invoke a web service from an Adaptive Form?**

Correct Answer: B - guidelib.wsdlUtils.invokeWebService

2. **Refer to the exhibit.**

```
<DDX xmlns="http://ns.adobe.com/DDX/1.0/">
    <PDF result="doc1.pdf">
        <Footer alternation="OddPages">
            <Right><StyledText><p>Page <_PageNumber/></p></StyledText></Right>
        </Footer>
            <TableOfContents maxBookmarkLevel="2" bookmarkTitle="Table of Contents" includeInTOC="true"/>
            <PDF source="doc1" bookmarkTitle="Chapter 1"/>
            <PDF source="doc2" bookmarkTitle="Chapter 2"/>
            <PDF source="doc3" bookmarkTitle="Chapter 3"/>
    </PDF>
</DDX>
```

   A custom process is developed to accept an 'AssemblerResult' from another process. The DDX file used to produce that result contains <PDF result="doc1.pdf">. Which logical name should be used to retrieve the document from the 'AssemblerResult'?

Correct Answer: B - doc1.pdf

3. **A form set is being implemented. Which variable input type is needed to post to a process endpoint?**

Correct Answer: C - Process input variable type is a map<string>

4. **Which statement supports the ability to retrieve XML data from an Adaptive Form?**

Correct Answer: A - guideBridge.retrieveXMLData()

5. **When designing a document of record to be generated automatically, which name should be used to indicate the root subform?**

Correct Answer: B - AF_METATEMPLATE

6. **A developer omits the 'Version' request parameter when calling a Workbench SOAP endpoint. What is the result?**

Correct Answer: D - The latest version of the process is invoked

7. **Which service produces a PDF/A document from a completed PDF?**

Correct Answer: C - Output

8. Where should a developer import a Correspondence Management solution into AEM 6.2?

Correct Answer: A - Assets

9. A developer creates and deploys a Servlet as part of a Java Project named MyProject. The Servlet returns an error code when accessed. Which log file should the developer check for errors?

Correct Answer: B - error.log under crx

10. Which two out-of-the-box components are packaged with Forms Portal?

Correct Answer: D - Document Services and Document Services Predicates

Support

For information on certification visit the Solution Partner Portal website. To contact us, please send an email to Certification Support.