



AWS Technofunctional Skills

Portfolio Project



Are you ready to build the future?

What you will learn

At the core of the Portfolio Project

You will learn how to:

- Work with a team to create an IT project
- Create various documents and a presentation about the project
- Manage the progress of the project

Key terms:

- **Press release (PR)** – A forward-looking document that describes the product or service based on the customer's need
- **Frequently asked questions (FAQ)** – A list of questions that customers and stakeholders are likely to have about the product or service
- **Iterative approach** – A way to repeatedly review and analyze a problem to arrive at a final solution



The Portfolio Project plan



Week by week schedule

- Week 1–2:
 - Work with your team to define a project
 - Submit your idea and get approval for the project
- Week 3–4: Press release/Frequently asked questions (PR/FAQ) rough draft and completion
- Week 5: Requirements gathering
- Week 6: Whiteboarding
- Week 7: Project presentation
- Week 8: Start building
- Week 9: Project build and Milestone presentation
- Week 10: Project build and AWS Tech Volunteers
- Week 11: Public presentation of project
- Week 12: Interview preparation



Purpose of the project

Build solutions that drive innovation in your community

By the end of the project you will:

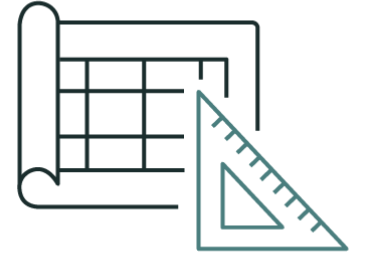
- **Become an AWS builder**
 - You will build solutions that could possibly change the world
 - Experience creating and managing the project on AWS
- **Build relationships**
 - You will build relationships that will continue past your time in the classroom
- **Build a useful knowledge base of AWS services and products**
 - You will create professional documentation
 - You will build a solution from end to end





Weeks 1 and 2

Meet the team and develop your concept



First week: Brainstorm a project.

- Your project could:
 - Help resolve a social or community problem.
 - Take advantage of an opportunity to improve a situation.
- If there is a piece to your project that you can't do (such as create a mobile app), but you do want to build all the supporting infrastructure, talk to your instructor.

Second week: Get approval.

- Submit your project idea to the instructor.
- When your idea is approved, move on to working on the PR/FAQ.
- Present your press release to your peers.

Duration:

- Complete by the end of the second week.

To get started:

1. Talk with your team when you brainstorm a project idea. Consider having alternative ideas to discuss with the instructor.
2. Talk to your instructor to get their input about the project idea that your team decided to work on.
3. Document the project idea that you selected.



Weeks 3 and 4

Create the press release



Why do you start with a press release?

- They are a way to start the development conversation for the team.
- By taking an iterative approach, you can achieve clarity about the product or service.
- You work backwards to ensure that the final product is on target. You start with a vision of the final product based on customer need.

General advice:

- In the beginning, focus on your idea and concept.
- The most important thing is that the idea is clearly stated and understandable.
- As a team member, if you see that something is missing or unclear, say something!

Press release: Idea or opportunity

You will start by asking and answering the following questions.

- Who is the customer?
- What is the customer problem or opportunity?
- What is the most important customer benefit?
- How do you know what customers need or want?
- What does the customer experience look like?



Writing the press release

1. Use the answers to the previous questions to determine the core content of your press release.
2. Make sure to cover the *what* and the *why* of your idea.
3. Write the press release so that anyone can read it.

Structure of a press release



For more information, see: <https://press.aboutamazon.com/news-releases/news-release-details/amazon-introduces-new-exclusive-prime-student-benefit-amazon>

Creating frequently asked questions (FAQ)



General guidelines:

- Design the FAQ to answer questions that a customer might ask after reading a Press Release.
- Put yourself in your customer's point of view by writing questions and answers that you would expect a real customer to ask.
- Provide details and data. FAQs are often several pages long and often include many details.





Week 5

Requirements gathering

Requirements gathering is the practice of researching and discovering the requirements of a system from users, customers, and other stakeholders.



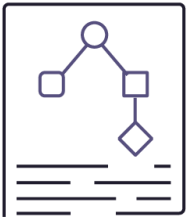
The following is one example of questions that you can answer to define requirements. Feel free to research for other techniques that can be used for requirements gathering.

1. What is the problem or opportunity? (It should already be defined in your press release.)
2. What is the measure that shows that the problem is real? Example: It takes more than a day for one supplier to notify its customers if a particular part is in stock. Customers need a real-time view of the inventory from the supplier.
3. What and how would you measure to prove that you resolved the problem? Example: The supplier's customers can see inventory availability that is accurate to less than 10 seconds.
4. Identify the cause of the problem.
5. How will the business measure that the solution meets the business goals?
6. Specify a product design to satisfy the requirements.



Week 6

Whiteboard or diagram the solution



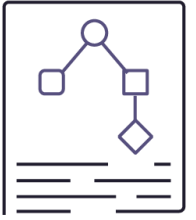
Whiteboarding is simple and effective.

- Whiteboarding is a simple and effective tool for improving presentations.
- You can also use your whiteboarding work as a reference later during a presentation.

Elements of professional whiteboarding are:

1. Write down any items that you want the audience to remember.
2. Draw each part of the architecture individually.
3. Don't talk to the whiteboard! When you talk while you draw, make sure that you turn towards the audience.
4. Draw from the shoulder. If you whiteboard like you write, your drawings will be probably be too small. Instead, lock your wrist and elbow, and use your shoulder to move the marker. This will enable you to naturally draw larger objects.

Practice, practice, practice



Whiteboarding

To have confidence with whiteboarding during an interview, you must practice. Take time during this week to complete the following exercise:

1. Get to a whiteboard. If a whiteboard isn't available, you can use a paper easel. It must be a large surface—practicing on a piece of paper won't work.
2. Using the techniques that were just covered, draw out the flow of going to the grocery store and buying several items.
3. The flow should start with *Walk into the store* and end with *Leave the store*.

Questions to ask:

1. Did I capture the main intent of the message without spending too much time on details?
2. Is the diagram clear?
3. Are there items in the diagram that should have been left out?



Week 7

Project plan team presentation

During week 7, start planning your team's presentation to the class.

The presentation will consist of the following elements:

1. Definition or concept of the project.
2. How your team will try to solve the problem.
This can include a visual element, such as whiteboarding, to help better explain your proposed solution.
3. A reading of your press release.
4. A questions-and-answers session (Q and A) with your classmates.

Note: Your presentation should be 10–15 minutes long.





Week 8

Pick a role

Team members should take on specific roles. During the eighth week, decide which role best fits each team member. Each member of the team will then be responsible for their selected role. Here are the four basic roles to assign:

1. Project Manager
2. Cloud Infrastructure Architect
3. Application Developer
4. Business Analyst

Review the definitions for the cloud roles:

1. **Program Manager:** A program manager is responsible for the planning, management, and close-out of cloud and digital transformations.
2. **Cloud Infrastructure Architect:** A cloud infrastructure architect must be able to design solution-specific cloud infrastructure architectures.
3. **Application Developer:** An application developer must be able to develop, configure, release, and support business applications.
4. **Business Analyst:** The business analyst is responsible for the project requirements, gathers any documents that are used to support the project, and works with customers and stakeholders to help ensure the project's success.

Note: If you don't see a specific role and you think that role is needed for your project, discuss it with your instructor.

Log in!



This week, in addition to selecting roles, you will set up the environment for your solutions.

Things to do:

1. Get your login information and access the lab environment. Ensure that everyone on the team knows how to log in.
2. Do not start building until you have a plan and you know what your team will build.
3. Create a basic process to control deployment in the environment. You will need to ensure that your team has a process to approve building, and a process for approving who can remove or delete infrastructure.

Remember: If you have any questions about AWS services, do your own research first. If you can't find any answers, consult your instructor.



Week 9

Project build and Milestone presentation

Continue building your projects.

You will build your project during this week.

At the end of the week, your team will do a rough presentation about the project to your instructor. This will serve as a check before your final presentation in 2 weeks.

Be sure to:

1. Show your infrastructure to your instructor.
2. Review your PR/FAQ to ensure that you are still aligned with the target outcome.
3. Review your requirements to ensure that you have covered all the elements.
4. Run through your whiteboarding for the project again.
5. Be ready to present next week.
6. Each member of the team should state their role and talk about how they contributed to the project.



Week 10

Project build and AWS Tech Volunteers

You will continue building your portfolio project during this week.

If possible, one or more AWS engineers will be in class as AWS Tech Volunteers to help with your projects. Ask them for any final help to address tough problems or decisions that you are trying to solve.



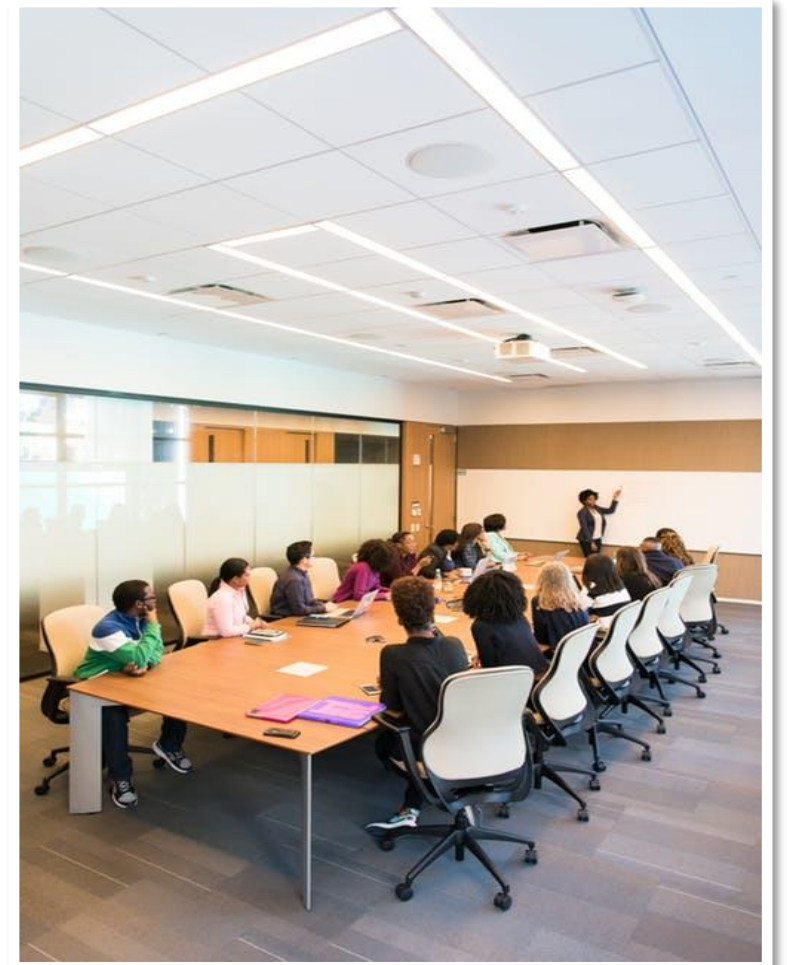


Week 11

Public presentation

Finally, you and your team will present your project to the class! You must cover these elements:

1. Review of the press release, including the problem, the proposed solution, and the measure of success.
2. Requirements for the project and how you were able to meet them.
3. Whiteboard. Take time to cover interesting points, like scaling or managed services.
4. Answer questions. Take questions from your instructor and your classmates.



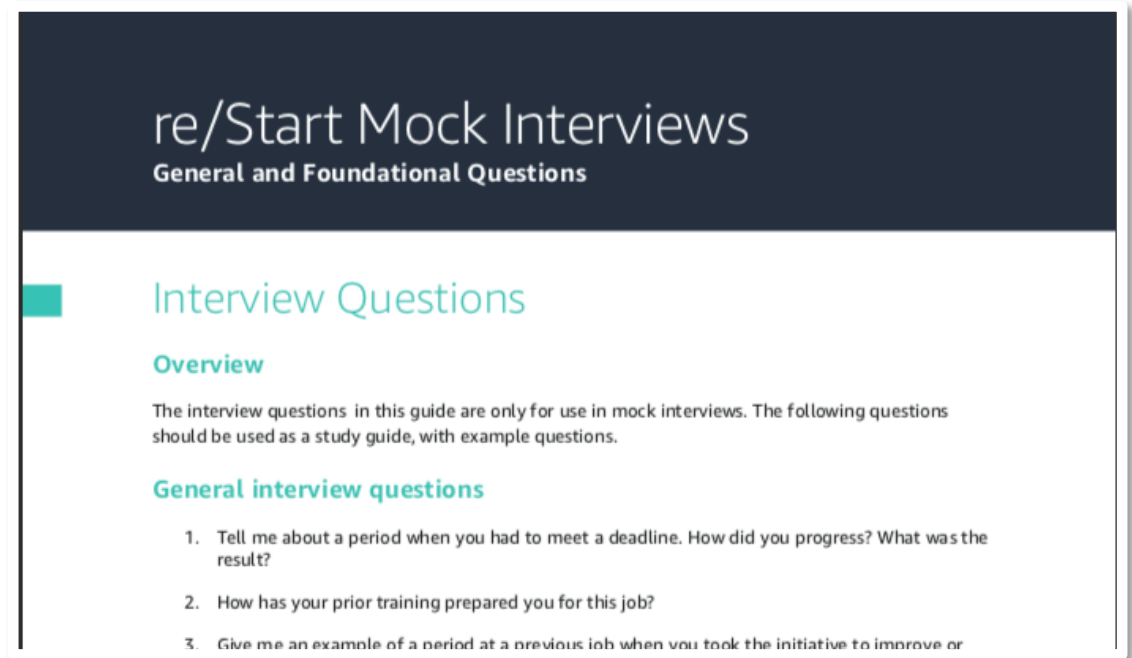


Week 12

Interview preparation

With your class almost finished, you can now start practicing interview questions in earnest. Use the *re/Start Mock Interviews* questions.

Break into groups of two, and alternatively play the parts of potential employer and potential employee.





Thank you for participating!

© 2020, Amazon Web Services, Inc. or its affiliates. All rights reserved.

