




Portfolio Project

Techno Functional Soft Skills



Are you ready to build the future?

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Are you ready to build the future?

The Portfolio Project is intended to simulate a real-world, cloud-role experience. Let's take a look at what you will learn.

What you will learn



At the core of the Portfolio Project

You will learn how to do the following:

- 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)
- Frequently asked questions (FAQ)
- Iterative approach

The portfolio project will be covered over the 12-week program. You will perform the various steps that are required to create a valuable solution built on Amazon Web Services (AWS). In the end, you will have a concrete project to include in your portfolio as you transition to the interview process.

A press release (PR) is a forward-looking document that describes the product or service based on the customer's needs.

Frequently asked questions (FAQ) is a list of questions that customers and stakeholders are likely to have about the product or service.

An iterative approach is a method of repeatedly reviewing and analyzing a problem to arrive at a solution.


Portfolio project plan



Week-by-week schedule

- **Weeks 1–2:**
 - Work with your team to define a project.
 - Submit your idea and get approval for the project.
- **Weeks 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

This slide summarizes the weekly schedule and the expected output of the Portfolio Project.



Purpose of the project

Why are you building this project?

Building solutions that drive innovation in your community

By the end of the project, you will have done the following:

- Become an AWS builder:
 - You will have built solutions that could change the world.
 - You will have gained experience creating and managing the project on AWS.
- Built relationships:
 - You will have built relationships that will continue past your time in the classroom.
- Built a useful knowledge base of AWS services and products:
 - You will have created professional documentation.
 - You will have built a solution from start to finish.



By the end of the project, you will have done the following:

- Become an AWS builder.
- Built relationships.
- Built a useful knowledge base of AWS services and products.



Weeks 1 and 2

Meeting the team and developing your concept



First week: Brainstorm a project

- Your project could do the following:
 - Help resolve a social or community problem.
 - Take an opportunity to improve a situation.
- Your project could have a component that you can't do (such as create a mobile app), but you want to build all the supporting infrastructure. In that case, talk to your instructor.

Second week: Get approval

- Submit your project idea to the instructor.
- When your idea is approved, start 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 on the project idea that your team decided to work on.
3. Document the project idea that you selected.

Before you start writing, you want to think about the following five questions and answer them for your idea. Answers to these questions will help you write your PR/FAQ. Remember that you want to tell a simple and effective story.

- Who is the customer?
 - Who is affected?
- What is the customer problem or opportunity?
 - Are you proposing to launch a new service, tool, or idea?
 - An example is a new approach to planning spaces.
- What is the most important customer benefit?
 - Why does the customer need this solution in their life?
- How do you know what customers need or want?
 - Do you have any supporting evidence to support your idea?
- What does the customer experience look like?
 - How does it work?



Weeks 3 and 4

Creating the press release



Why do you start with a press release?

- Creating a press release is 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 backward to ensure that the final product is on target. You start with a vision of the final product, which is based on a 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?



Your will use the answers to these questions to build the PR/FAQ document.

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.

Now that you have thought about the questions and discussed them with your team, it's time to start writing down your ideas:

- The press release is a good tool for communicating a new idea and guiding your conversations with your customer.
- A good press release communicates the ***what*** and the ***why*** of an idea.
- **Anyone** should be able to read your press release and understand the idea.

Structure of a press release (1 of 2)

Headline →

Problem or opportunity →

Press release

Amazon Introduces New, Exclusive Prime Student Benefit: Amazon Music Unlimited for Just \$0.99
August 6, 2019 at 9:00 AM EDT

Starting today, new and current Prime Student members can subscribe to Amazon Music Unlimited. They'll get more than 50 million songs plus thousands of curated playlists and stations at the new price of \$0.99/month.

College students can sign up for a 6-month trial of Prime Student. They can enjoy fast, free delivery from Prime, thousands of movies and shows with Prime Video, ad-free music, and more.

SEATTLE — (BUSINESS WIRE) — Aug 6, 2019 — (NASDAQ:AMZN) — Amazon today introduced a new music benefit for Prime Student members as students get ready to head to campus this fall. New and current student members can now subscribe to Amazon Music Unlimited, the premium subscription tier of Amazon Music. They can immediately have access to more than 50 million songs and the latest releases for an additional \$0.99 per month.

Headline

The headline of your press release should be a short but compelling description of the product or feature that you are building. It describes the solution that you are launching and the most important benefit that the customer will receive.

Problem or opportunity

The problem or opportunity must be customer-focused. Clearly explain the opportunity or the problem that must be solved. Don't amplify the problem or opportunity in a false or misleading way. It's helpful to use the following format: "Customers used to have to"

Structure of a press release (2 of 2)

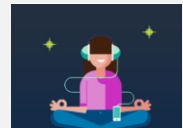
Solution

Starting today, existing Prime Student members can add on the Amazon Music Unlimited offer to their monthly or annual Prime Student membership plan for just \$0.99 a month. College students who haven't yet tried Prime Student can also sign up for a six-month trial at amazon.com/primestudent and take advantage of the new music benefit.

Optional customer testimonial

"Music is truly an integral part of campus life and bringing Amazon Music's premium subscription tier to Prime Student members lets students enjoy their favorite artists, songs and playlists on demand and ad-free at an incredibly low price," said Cem Sibay, VP of Amazon Prime. "With Prime Student, members can enjoy this new music benefit along with exclusive student offers throughout the year, making it easy to access the best of shopping and entertainment from Prime at a great value."

Soundtracks for Student Life



Solution

Clearly explain your vision for how to make the most of an opportunity that will benefit the customer, or how you will solve the customer's problem. It's helpful to use the following format: "Today, customers can"

Customer testimonial (optional for the class project but not optional for a real project)

The customer testimonial is a fictional quote from a customer. Though it's not an actual quote, it should be specific, be believable, and sound like a human said it. Use the testimonial to reinforce why the customer cares about the solution that you are launching. Often, it's a good practice to start the process of writing the press release by writing the testimonial first.

For more information, see *Amazon Introduces New, Exclusive Prime Student Benefit in the Amazon Press Center* at <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.
- Think about your solution from your customer's point of view by writing questions and answers that a real customer would ask.
- Provide details and data. FAQs are often several pages long and often include many details.



Frequently asked questions (FAQs) are the second part of working backward toward a possible solution. FAQs are designed to answer questions that a customer or manager might ask after they read a press release. The press release describes the vision, but the FAQ provides details and data. FAQs are often several pages long, and they often include many details.

It's important to identify difficult questions and their answers early and to include them in the FAQ. What questions do you hope you won't be asked? What questions do you not know the answer to yet? Don't hide or avoid difficult questions; instead, include these questions so that you can see the strengths and weaknesses of the idea.



Week 5

Requirements gathering (1 of 2)



Definition

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

You can answer the example questions to define the requirements for your project. You can also research and use other techniques for gathering requirements.

Requirements gathering (2 of 2)



Questions

- What is the problem or opportunity?
 - Your press release should already have defined the problem or opportunity.
- What measure shows that the problem is real?
- What would you measure to prove that you resolved the problem, and how would you measure it?
- What is the cause of the problem?
- How will the business measure that the solution meets the goals of the business?
- Specify a product design to satisfy the requirements.

The following scenario describes an online reseller who uses an older system for online ordering. The following examples are possible answers to the requirements-gathering questions:

- What is the problem or opportunity?
 - Customers of an online supplier need real-time access to inventory so they can order supplies.
- What measure shows that the problem is real?
 - It takes more than a day for the supplier to notify its customers whether a specific part is in stock. Customers need a real-time view of the inventory from the supplier.
- What would you measure to prove that you resolved the problem, and how would you measure it?
 - The supplier's customers can now see the available inventory, which is accurate for fewer than 10 seconds.
- What is the cause of the problem?
 - The supplier uses an old accounting system that a programmer modified. The system pulls data from the inventory once a day and publishes the data to the supplier's website.
- How will the business measure that the solution meets the goals of the business?
 - Sales will be measured through a new system that ties online ordering and over-the-counter sales together. The inventory must be automatic because

orders are accepted both in person and over the internet. The old system can't be taken down during the switch, and the supplier wants at least a week to assess any solutions before they make a complete cutover.

- Specify a product design that will satisfy the requirements.
 - A consultant suggests using a real-time inventory system that is available from the AWS Marketplace. The system could run alongside the current inventory system, but it would require employees to use both systems temporarily. The new system would be available in real time almost immediately. In addition, the software supplier offers a 30-day free trial when customers purchase the software through the AWS Marketplace.



Week 6

Whiteboarding or diagramming the solution



Benefits of whiteboarding

- Whiteboarding or diagramming your solution is a simple and effective tool for improving presentations.
- You can also use your whiteboarding or diagramming work as a reference during future presentations.

Elements of professional whiteboarding



Tips

- Write down any items that you want the audience to remember.
- Draw each part of the architecture individually.
- When you talk while you draw, make sure that you turn toward the audience.
 - Don't talk to the whiteboard.
- Draw from the shoulder.
 - If you whiteboard the same way that you write, your drawings will probably be too small.
 - Instead, lock your wrist and elbow, and use your shoulder to move the marker.
 - This technique will enhance your ability to naturally draw larger objects.

The following are elements of whiteboarding:

- Items that you want the audience to remember can range from numbers or dates to an entire reference infrastructure for a complex IT system.
- Don't try to draw the entire solution at the beginning. Draw each part of the architecture individually.
- When you talk while you draw, make sure that you turn toward the audience.
- If you whiteboard the same way that you write, your drawings will probably be too small. Instead, lock your wrist and elbow, and use your shoulder to move the marker. This technique will help you to naturally draw larger objects.

Practice, practice, practice



Build confidence with practice

To be confident with whiteboarding during an interview, you must practice. This week, take time to complete this exercise:

1. Use a whiteboard or a paper easel. It must be a large surface. Practicing on a piece of paper won't work.
2. Using the techniques that you learned, draw a decision 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 yourself:

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 I should have left out?

Use this grocery shopping example to draw a decision flow diagram on the whiteboard.



Week 7

Planning the team project presentation

Start planning your team's class presentation

Your presentation must include the following:

1. A definition or concept of the project
2. A description of how your team will try to solve the problem
 - This part can include a visual element, such as whiteboarding, to help you 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.

The following are suggestions for a successful presentation:

1. Practice, even if you only sit in a group and handle the presentation. The more you practice, the easier it will be.
2. Share the stage. If all members of your team are not presenting, then have at least two or three members of the team handle the presentation. You could have one person talk about the press release, another person could talk about requirements, and a third person could draw on the whiteboard.
3. Review the FAQ so you that will have answers in mind if your peers have questions about your project.
4. If you will be whiteboarding (and you should), practice diagramming so that you know what you will draw. For elements that you will need, you can draw them before you start your presentation, or have someone else draw them during the presentation.
5. Practice!



Week 8

Choosing a role

Choose from four cloud roles

All team members should take on a specific role, which they will be responsible for. During this week, decide which role best fits each team member.

The team should select from the following four basic cloud roles:

1. Project manager
2. Cloud infrastructure architect
3. Application developer
4. Business analyst

Review cloud roles

1. **Project manager:** Plans, manages, and closes out cloud or digital transformations
2. **Cloud infrastructure architect:** Designs solution-specific architectures for cloud infrastructure
3. **Application developer:** Develops, configures, releases, and supports business applications
4. **Business analyst:** Handles project requirements, gathers documents that 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 that you think your project needs, talk to your instructor.

Take time to ensure that all the elements of a project are covered. Be flexible if another team member wants to choose a role that you might also want. Remember that you are working on this project so that you can experience what it's like to work on a team where you have a defined role. You shouldn't feel as though you will work in this role for the rest of your career. Remember that people often take on many different roles throughout their careers.

Logging in



This week, you will also set up the environment for your solutions

Tasks to do:

- Get your login information and access the lab environment. Ensure that everyone on the team knows how to log in.
- Don't start building your solution until you have a plan and you know what your team will build.
- Create a basic process to control deployment in the environment. Your team must have a process to approve building infrastructure or features 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.

During this time, you might ask your instructor for any additional help that you might need. Do a reasonable amount of research first, and if you can't find a solution, talk to your instructor.

As you learn more about AWS during the final weeks of class, expect to make changes to your project. You might find a service at the beginning of class that works but then later learn about a service that is better for the solution.

Week 9

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Next, you'll do a project build and milestone presentation.

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 presentation will serve as a check before you complete and deliver your final presentation in 2 weeks.

Be sure to do the following:

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. Have each member of the team state their role and talk about how they contributed to the project.

Build your project by using AWS services, and provide your instructor with a milestone presentation to show your progress.



Week 10

Project build and AWS Tech Volunteers

You will continue to build 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 with addressing difficult problems or decisions that you are trying to solve.



Continue building your team's solution. During this week, if possible, one or more AWS employees will be in class as AWS Tech Volunteers to help you with your projects. If you are having trouble with some aspect of the AWS infrastructure, the AWS Tech Volunteers will be a valuable resource.

Remember that the AWS Tech Volunteers are there to help everyone. Be ready with any questions so that they can help every team in the best way possible.



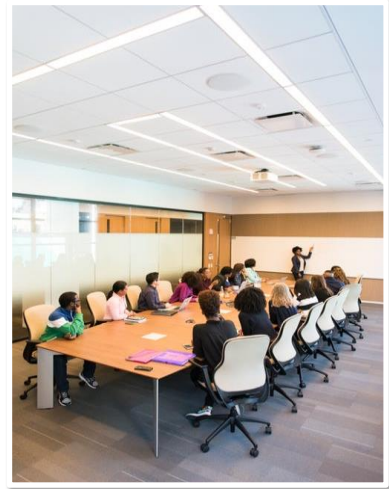
Week 11

Public presentation

Finally, your team will present your project to the class.

You must cover these elements:

- Review the press release: Check that your press release includes the problem, the proposed solution, and the measure of success.
- Review requirements: Review your project requirements and how you were able to meet them.
- Whiteboard: Take time to cover interesting points, such as scaling or managed services.
- Answer questions: Take questions from your instructor and your classmates.



When you do your final presentation, plan on repeating your first presentation but with better delivery and content. At this point, you should have a project that you can demonstrate with confidence during an interview with a potential employer.



Week 12

Preparing for interviews

- Your class is almost finished, so you can now start practicing interview questions in earnest.
- Use the AWS re/Start Mock Interviews questions.
- Form pairs, and alternate between playing the part of the potential employer and the part of the potential employee.

While you interview each other, don't hesitate to be tough. If you test each other now, it will make actual interviews easier.

When you play the role of the potential employer, ask questions from different sections. Move between sections to ask questions, instead of asking questions in order from start to finish. Also, ask your teammate to give an example (where applicable) for their answer. For example, if a question focuses on load balancing, you can add, "So, do you have any experience configuring load balancers?"



Thank you



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Thank you for completing this module.