

**Congratulations on being selected for an on-site interview at Deluxe!**

As part of your interview, you’ll lead a workshop with team members from the Development team. This workshop helps us understand how you would interact with a team in order to tackle creating an application using best practices.

This document outlines the context you’ll need to plan and execute the workshop.

**Context**

You have been asked to create a web-based calculator application.

You are the only Developer working on the calculator, and it’s up to you to develop the code using best practices. We (the interviewers) will take on the roles Automation Engineers, Quality Engineers, and Product Owners, and you can freely interact with us and ask questions about the calculator, during this exercise.

**Please spend 1-2 hours on some level of coding in advance of the simulation.  A working project is not required, but we do want to talk through how you would make this code work and how the code would change if new needs are determined during the simulation.**

Your Product Owner has written the below stories associated to the work:

* As an Accountant I want to add two numbers so that I can see what the total is.
* As an Accountant I want to subtract two numbers so that I can see what the difference between them is.
* As an Accountant I want to divide two numbers so that I can know the quotient.
* As an Accountant I want to multiply two numbers so that I can see what their product is.
* As an Accountant I want to toggle the sign of numbers so that I can reverse them at will.
* As an Accountant I want to delete a wrongly entered digit so that I can correct the number to input.
* As an Accountant, I want to store a number so that I can use it later.
* As an Accountant I want to reset the calculator so that I can start fresh.
* As an Accountant, I want to store operations so that I can recall them to see the steps that resulted in the final answer.

**Planning your Workshop**

Before your interview, think about the questions you need answered about the calculator application. Think through how you would approach creating the application. How would you structure your project? What framework, tools, processes, patterns, etc. would you use in order to create dependable and bug free code across the different layers of this application?

**At your group video Interview**

Your group video interview will begin with the collaborative workshop you’ve planned. Your job is to facilitate and lead the workshop, so you’ll call it to order, make sure everyone understands its objectives, and drive it to fulfill its purpose.

Your workshop will be attended by team members from across product management, software engineering, quality assurance, and user experience disciplines. We will use Microsoft Teams and codeshare.io. If you need any other supplies, let me know ahead of time, and we will try to accommodate your request.

**On ambiguity**

This exercise is intentionally crafted to give you a lot of latitude in deciding how to spend your time with the team. This isn’t a trick question or a trap. We’re not trying to figure out if you can give us the ‘right’ answer. We want you to be creative, use your critical thinking skills, and show us how you would structure a process to begin solving a big, ambiguous problem.

**Questions?**

If you have any questions about this exercise, you can email me at Mark.Vain@deluxe.com.