Graphical user interface, text, application

Description automatically generated

Text, letter

Description automatically generated

Ideas:

PrairieLearn is function as a service (AWS lamba) specialized for educational code (learning platform). People want to write code to generate question and grade afterwards. It is easy to write code to generate question, but there is a lot of other things you need to do to get the question in front of the student (server, scaling, security).

Amazon lambda: you give them code to run one function, and they worry about the rest. Give them the url, and everything is ready

PrairieLearn does the same, but for many other types of “function”. We are basically running a function as a service (FAAS) competitor (serverless compute) but for education. Faculty want to create learning educational tools to students, but they want to have to worry about the infrastructure when writing their question code.

We need to provide: SECURITY, FAST WARM (used recently) AND COLD START, someone

request a question, we need to be able to run that question code immediately (millisecond), very low latency of these functions. AUTO-SCALE: need to be available to run 1000 questions at the

Currently do this for 500 students, but we need to be able to scale this for 5000 students.

Serverless platform for educational experience. Very hot area right now, AWS, Azure, Google

[https://azure.microsoft.com/en-us/services/functions/?&ef\_id=Cj0KCQiA2uH-BRCCARIsAEeef[…]7LypNbY4FPInfP3L8Imx7bvTTMR889fm3jvZSI40K3DUhcaArIGEALw\_wcB](https://azure.microsoft.com/en-us/services/functions/?&ef_id=Cj0KCQiA2uH-BRCCARIsAEeef3nvmK8Ml7LypNbY4FPInfP3L8Imx7bvTTMR889fm3jvZSI40K3DUhcaArIGEALw_wcB:G:s&OCID=AID2100131_SEM_Cj0KCQiA2uH-BRCCARIsAEeef3nvmK8Ml7LypNbY4FPInfP3L8Imx7bvTTMR889fm3jvZSI40K3DUhcaArIGEALw_wcB:G:s&gclid=Cj0KCQiA2uH-BRCCARIsAEeef3nvmK8Ml7LypNbY4FPInfP3L8Imx7bvTTMR889fm3jvZSI40K3DUhcaArIGEALw_wcB)

<https://vercel.com/home>

Auto-grader and workspaces (containers for the question). They don’t want to know where the files go, what is done, how it is computed. They just want the result.