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D387 Advanced Java

***PART C3. Describe how you would deploy the current multithreaded Spring application to the cloud. Include the name of the cloud service provider you would use.***

I would use Azure to deploy the Landon Hotel scheduling application to the cloud. I chose Azure because of the simplicity of the deployment process.

In order to deploy the application to Azure, I would complete the following steps:

**Step 1: Deploy the application to Docker Hub**

Change the port configuration to allow it to be set though environment variables. This means it will no longer be hardcoded to port 8080. This is achieved by following the steps outlined in Figure 1 below. (Source: Sher-DeCusatis 2022).

In app.component.ts

- Import {Location,LocationStrategy} from "@angular/common";
- Add location and locationStrategy to the constructor
  - Constructor(private httpClient:HttpClient, private location: Location, private locationStrategy: LocationStrategy){}

- Comment out
  - private baseURL:string='http://localhost:8080';
- and replace it with
  - private baseURL:string=this.location.path();

**Figure 1. Change the port configuration from hard coded to flexible (Source: Sher-DeCusatis 2022).**

Generate a docker image for the Hotel Landon app. In this step, you will create a docker file, build the image, and run/test the image.

Push your image to Docker Hub. In this step, you will tag the image with your Docker Hub username, log in to Docker Hub, and then push the image.

Lastly, in Docker Hub, go to settings >> visibility settings and make your image public.

**Step 2: Deploy the Docker image to Azure**

Sign up for a new Azure account at azure.microsoft.com.  Next, sign into your account.

After signing into Azure, select “Create a resource”.  Then, search for and select “container app”. From there, click “Create”.

Next, fill out the “Create Container App” form as follows:

“Basics” section:

1. Select a subscription.
2. Name your new resource group.
3. Create a name for your container app.

“App Settings” section:

1. Deselect “Use quickstart image”.
2. Select “Docker Hub or other registries”.
3. Select “Public” for image type.
4. For “Image and tag”, Enter the image name as it appears in Docker Hub.
5. Enable Ingress.
6. Under “Ingress traffic”, select “Accepting traffic from anywhere”.
7. For the target port, enter 8080.
8. Click “Review + Create”.
9. Review the form and if everything looks correct, “click Create”.

**Step 3: To open your application to verify successful deployment:**

1. Click “go to resource”.
2. Click the link next to “application URL”.

## Sources

**D387 How To Deploy A Docker Container on AWS and Azure**

Western Governors University

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Host: Carolyn Sher-DeCusatis

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https://wgu.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=2d529e90-95d9-4034-943a-af520103bf13