# Part 1 – Setting Up a Flask App Image

## Build Flask App Image Using Dockerfile

Create a dockerfile with instructions on how to set up the Flask application:

Text

Description automatically generated

Build an image using the dockerfile – image is called flaskapp:v1

Text

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Run image on a container and map host port 8321 to container port 5000:

Text

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Check by navigating to <http://localhost:8321>:

Graphical user interface, application

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## Push the Flask App Image to Docker Remote Repository

Tag the flaskapp image first using **docker tag** command:

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Push the newly created image to remote repository with **docker push** command:

Text

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Confirm that it is available online:

Graphical user interface, application, Teams

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# Part 2 – Setting Up AWS ECS

## IAM – ECS Role Creation

Select *AWS Services* for Trusted Entity Type and *Elastic Container Service (Elastic Container Service Task)* for Use Case:

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Select *AmazonECSTaskExecutionRolePolicy* for permissions:Graphical user interface, text, application, email

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Enter Role Details and Create Role:

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## ECS Cluster

Navigate to ECS > Cluster > Create Cluster and select Networking Only to use AWS Fargate:

Graphical user interface, application

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Specify Cluster Name; since I will be using the custom VPC created from previous weeks, I will leave Create as unchecked:Graphical user interface, text, application, email

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Create Cluster:Graphical user interface, text, application, email

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## ECS Task Definition

Navigate to ECS > Task Definition > Create Task Definition and select *Fargate*:Graphical user interface, application, Word

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Set task definition name, select the created IAM role for Task Role, and select *Linux* for OS:Graphical user interface, text, application, email

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Set Task memory and CPU size:

Graphical user interface, text

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Click Add Container:

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Enter name of container, name of image created from Part 1 under Image, default memory limit to 128, and map container port 5000:Graphical user interface, text, application

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Keep all other configurations as default and create task definition:

Graphical user interface, text, application, email

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ECS Task (i.e. Container)

Navigate to the cluster created from earlier, then click on Tasks tab and select Run New Task:Graphical user interface, text, application

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Select Fargate as launch type and Linux as OS Family:

Graphical user interface, application

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Select a VPC and a subnet to use – make sure to set security group correctly with right ports:

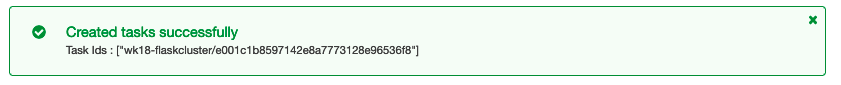
Graphical user interface, text, application

Description automatically generated

For security group, select existing security group that has port 5000 open:Graphical user interface, table

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Confirm creation of task:



Graphical user interface, text, application, email

Description automatically generated

Navigate to <http://3.82.240.254:5000/> to check that the container is running:

Graphical user interface, application

Description automatically generated

Check logs as well:Graphical user interface, text, application, email

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## Tearing Down Resources in ECS

Stop the Task:

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Delete Cluster:

Graphical user interface, application, Teams

Description automatically generated

Deregister Task Definition:

Graphical user interface, text, application, email

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