

# Predict-Xplore

## Docker Documentation

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### API Endpoints:

- create-container:

URL: `/model/create-container/`

Method: Post

Content-Type: multipart/form-data

Purpose:

- Accepts a **zip file** containing everything required for Dockerization (`inference.py`, `requirements.txt`, `dockerfile`, `model.pth`, and optionally other helper files).
- Extracts the files into a server-side folder.
- Builds a Docker image using the provided `dockerfile`.
- Registers the container metadata in the backend DB.

Parameters:

Field	Type	Description
name	str	Name of the model
description	str	Description of the model
allowed_users	array[str]	List of allowed user
zipfile	file	Zip file to dockerize.

- run-container:

URL: `/model/run-container/`

Method: Post

Content-Type: multipart/form-data

Purpose:

- Runs an already built Docker container image with an uploaded test file (e.g., a video, CSV, or image).
- Mounts the test file inside the container.
- Calls the container's `inference.py`, which expects:
  - Input file path: first positional argument (from mounted volume).
  - Output path: fixed → `/app/outputs/`
  - Model path: fixed → `/app/model.pth`

Parameters:

Field	Type	Description
image_name	str	Name of the model container
test_file	file	File to test

Output:

Field	Type	Description
detail	str	Inference complete
results_file	str	Output save path
error	str	No results generated

Results will be saved to `/outputs/{job_id}`

- list-container:

URL: `/model/list-container/`

Method: Get

Purpose:

- Fetches all stored containers from the DB.
- Shows basic metadata: id, name, description, created\_at.

Output: json containing List of container details.

Key	Type	Description
id	int	Container id
name	str	Model/container name
description	str	Description of model
created_at	str	Date-time stamp of creation

Ex: {

```
{
  "containers": [
    {
      "id": 1,
      "name": "stead_model",
      "description": "model description",
      "created_at": "2025-08-26T01:43:00.649Z"
    }
  ]
}
```

## File Structure:

Zip File:

Folder

	--inference.py (required)
	--dockerfile (required)
	--requirements.txt (required)
	--model.pth (required)
	--Other essential files (if any)

inference.py file:

Input object path: first positional argument. String type

Output path : ``/app/outputs/``

Model path : ``/app/model.pth``