

Google x AMD

Solving For India Hackathon

Team Name: Bots with Brains

College: Shri Ramdeobaba College of Engineering and Management, Nagpur

Region: West

Team Leader: Prathamesh Rajbhoj

Team Members: Srushti Dhakate, Prathamesh Gujar, Utkarsh Sathawane

The screenshot displays the Google Cloud console interface for the project 'cancer-detection-deep-learning'. The left sidebar shows the 'Compute Engine' section with 'VM instances' selected. The main panel shows a table of VM instances with columns for Status, Name, Zone, Recommendations, In use by, Internal IP, External IP, and Connect. Three instances are listed: 'amd-solving-for-india-notebook-vm' (us-east1-b), 'colab-notebook-1-vm' (us-central1-a), and 'notebook-train' (us-west1-b). Below the table, there are 'Related actions' such as 'Explore Backup and DR', 'View billing report', 'Monitor VMs', 'Explore VM logs', 'Set up firewall rules', 'Patch management', and 'Load balance between VMs'.

Status	Name	Zone	Recommendations	In use by	Internal IP	External IP	Connect
✓	amd-solving-for-india-notebook-vm	us-east1-b			10.142.0.2 (nic0)	34.74.92.16 (nic0)	SSH
✓	colab-notebook-1-vm	us-central1-a			10.128.0.3 (nic0)	34.136.23.93 (nic0)	SSH
⚙	notebook-train	us-west1-b			static3 (10.138.0.4) (nic0)	34.168.91.133 (nic0)	SSH

amd-solving-for-india-notebook x Deployments - Deployment Man x Welcome to Colaboratory - Colab x CancerDetection.ipynb - Colabor x Welcome to Colaboratory - Colab x +

console.cloud.google.com/compute/instancesDetail/zones/us-east1-b/instances/amd-solving-for-india-notebook-vm?project=cancer-detection-deep-learning

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Google Cloud Cancer-Detection-Deep-Learning Search (/) for resources, docs, products, and more Search

Compute Engine

Virtual machines

- VM instances
- Instance templates
- Sole-tenant nodes
- Machine images
- TPUs
- Committed use discounts
- Reservations
- Migrate to Virtual Machin...

Storage

- Disks
- Snapshots
- Images
- Async Replication

Instance groups

- Instance groups
- Marketplace
- Release Notes

Details

Basic information

Name	amd-solving-for-india-notebook-vm
Instance id	4784507078825763255
Description	None
Type	Instance
Status	Running
Creation time	May 24, 2023, 3:26:43 PM UTC+05:30
Zone	us-east1-b
Instance template	None
In use by	None
Reservations	Automatically choose (default)
Labels	goog-dm: amd-solvin...
Tags	
Deletion protection	Disabled
Confidential VM service	Disabled
Preserved state size	0 GB

Machine configuration

Machine type	n2d-standard-8
CPU platform	AMD Rome
Architecture	x86_64
vCPUs to core ratio	—
Custom visible cores	—
Display device	Disabled Enable to use screen capturing and recording tools
GPUs	None

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console.cloud.google.com/dm/deployments?project=cancer-detection-deep-learning

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Deployment Manager

Deployments

DEPLOY MARKETPLACE SOLUTION STOP DELETE SHOW INFO PANEL

Deployments

Type registry

Learn how to convert your deployment to KRM or Terraform

Filter Filter deployments

<input type="checkbox"/>	Name	Created on	Last modified	Labels
<input checked="" type="checkbox"/>	amd-solving-for-india-notebook	1 minute ago	Just now	cloud-mark...: colab-mark...
<input checked="" type="checkbox"/>	colab-notebook-1	1 hour ago	1 hour ago	cloud-mark...: colab-mark...

https://ssh.cloud.google.com/v2/ssh/projects/cancer-detection-deep-learning/zones/us-east1-b/instances/amd-solving-for-india-notebook-vm?authuser=0&hl=en_US&projectNumber=284103594388&useAdminProxy=true - Google Chrome

ssh.cloud.google.com/v2/ssh/projects/cancer-detection-deep-learning/zones/us-east1-b/instances/amd-solving-for-india-notebook-vm?authuser=0&hl=en_US&projectNumber=284103594388&useAdminProxy=true

SSH-in-browser

UPLOAD FILE DOWNLOAD FILE

To use this VM in the Colab UI, navigate to the URL:

<https://colab.research.google.com/#gceVm=cancer-detection-deep-learning/us-east1-b/amd-solving-for-india-notebook-vm>

```
rajbhajpr@amd-solving-for-india-notebook-vm ~ $ docker ps
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
d73fa8bd5b8d	gcr.io/colab-datalab/kernel_manager_proxy:baked	"/kernel_manager_pro..."	2 minutes ago	Up 2 minutes		kmp_default
e3d93519a3aa	gcr.io/colab-datalab/tunnelbackend_binary:baked	"/tunnelbackend_bina..."	2 minutes ago	Up 2 minutes		tunnelbevm
05b8746cb896	kernel:default	"/datalab/run.sh"	2 minutes ago	Up 2 minutes	8080/tcp	k_default

```
rajbhajpr@amd-solving-for-india-notebook-vm ~ $ docker ps
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
d73fa8bd5b8d	gcr.io/colab-datalab/kernel_manager_proxy:baked	"/kernel_manager_pro..."	2 minutes ago	Up 2 minutes		kmp_default
e3d93519a3aa	gcr.io/colab-datalab/tunnelbackend_binary:baked	"/tunnelbackend_bina..."	2 minutes ago	Up 2 minutes		tunnelbevm
05b8746cb896	kernel:default	"/datalab/run.sh"	2 minutes ago	Up 2 minutes	8080/tcp	k_default

```
rajbhajpr@amd-solving-for-india-notebook-vm ~ $ docker images
```

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
kernel	default	3402b9aab06e	3 weeks ago	24.1GB
gcr.io/colab-datalab/tunnelbackend binary	baked	aad19ad6318b	3 weeks ago	14MB
gcr.io/colab-datalab/tunnelbackend binary	staging	aad19ad6318b	3 weeks ago	14MB
gcr.io/colab-datalab/kernel_manager_proxy	baked	e5d0d0261f02	3 weeks ago	10.1MB
gcr.io/colab-datalab/kernel_manager_proxy	staging	e5d0d0261f02	3 weeks ago	10.1MB
gcr.io/cos-cloud/cos-gpu-installer	v20230117	088d34d5be63	4 months ago	391MB

```
rajbhajpr@amd-solving-for-india-notebook-vm ~ $ docker exec -it 05b8746cb896 bash
```

```
ls
```

bin	content	dev	home	lib32	libx32	mnt	opt	python-apt	run	srv	usr
boot	datalab	etc	lib	lib64	media	NGC-DL-CONTAINER-LICENSE	proc	root	sbin	sys	tools

```
cd content
```

```
content# ls
```

```
sample_data
```

```
content#
```

Pratham - Chrome

VM instances - Compute Engine | Deployments - Deployment Manager | Welcome to Colaboratory - Colab

colab.research.google.com/#gceVm=cancer-detection-deep-learning/us-east1-b/amd-solving-for-india-notebook-vm

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Welcome to Colaboratory

File Edit View Insert Runtime Tools Help

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- Getting started
- Data science
- Machine learning
- More resources
- Featured examples
- Section

Examples Recent Google Drive GitHub Upload

Filter notebooks

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Welcome to Colaboratory	15:31	15 Nov 2021	
CancerDetection.ipynb	15:18	16 May	
cats-v-dogs-classification.ipynb	10:21	10:21	
A_53_AI_Practical8.ipynb	17 May	9 May	
A_53_CD_prac_6.ipynb	11 May	28 April	

New notebook Cancel

Easy sharing

VM instances - Compute Engine x Deployments - Deployment Man... x CancerDetection.ipynb - Colabor... x

colab.research.google.com/drive/1R61RRAtQP5dos744uXbnL2KWqe/YaOmj

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CancerDetection.ipynb ☆

File Edit View Insert Runtime Tools Help Last saved at 15:33

+ Code + Text

Importing Libraries

```
[ ] import numpy as np
import cv2

import PIL.Image as Image

import shutil
import os

import matplotlib.pyplot as plt

import tensorflow as tf
import tensorflow_hub as hub

from tensorflow import keras
from tensorflow.keras import layers
from tensorflow.keras.models import Sequential

import time
```

Connected to Custom GCE VM
Project: cancer-detection-deep-learning
Zone: us-east1-b
Instance: amd-solving-for-india-notebook-vm
RAM: 1.10 GB/31.36 GB Disk: 23.75 GB/185.96 GB

Downloading Dataset From Kaggle

03:36 PM 24-05-23

VM instances - Co... x Deployments - De... x CancerDetection.i... x

colab.research.google.com/drive/1R61RRAtQP5dos744...

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CancerDetection.ipynb ☆

File Edit View Insert Runtime Tools Help

Files

- ..
- DATASET
 - sample_data
 - kaggle.json
 - skin-cancer-malignant-vs-benign.zip

+ Code + Text

```
[8] Total benign files : 360
Total benign files : 1440
Total malignant files : 300
Total malignant files : 1197

[9] ### deleting old folders
# shutil.rmtree(curr_dir + "/data")
# shutil.rmtree(curr_dir + "/test")
# shutil.rmtree(curr_dir + "/train")

[10] Total_images = 0

for dirs, subdirs, files in os.walk
print(f'Benign : {len(files)}')
Total_images = Total_images + len(

for dirs, subdirs, files in os.walk
print(f'Malignant : {len(files)}')
Total_images = Total_images + len(

print(f'\nTotal images : {Total_imag

Benign : 1800
Malignant : 1497
```

0s completed at 15:37

SSH-in-browser

UPLOAD FILE DOWNLOAD FILE

NAME	STATUS	PORTS	NAMES
d73fa8bd5b8d	gcr.io/colab-datalab/kernel_manager_proxy:baked	8080/tcp	"/kernel_manager_pro..."
e3d93519a3aa	gcr.io/colab-datalab/tunnelbackend_binary:baked		kmp_default
05b8746cb896	kernel:default		"/tunnelb
05b8746cb896	kernel:default		tunnelbevm
05b8746cb896	kernel:default		"/datalab
05b8746cb896	kernel:default		run.sh"

```
rajbhajpr@amd-solving-for-india-notebook-vm ~ $ docker exec -it 05b8746cb896 bash
/ # ls
bin content dev home lib32 libx32 mnt
python apt run srv usr
boot datalab etc lib lib64 media
oot sbin sys tools var
/ # cd content
/content# ls
sample_data
/content# ls
DATASET kaggle.json sample_data skin-cancer-malignant-vs-benign.zip
/content#
```

03:38 PM 24-05-23