COMP-4312:
Cloud Computing

Dr. Tin Vo

Lecture 9:
Final Project

Project Overview

- Requirement: Deploy a machine-learning model on an IAAS
- Submission Deadline: Nov. 22, 2020 (11:30 PM)
- Teamwork: 4 students/group → 11 groups
- Deliverables
  - A two-page report
  - Presentation
- Grading: 40% of your final grade
- Detailed description could be found on D2L

Find Your Team-mates

Group ID	Student ID	Last Name	First Name	Email
1	0868305	Vo	Justin	jmvo
	0697293	Luszczynski	Kristopher	kluszczy
	0902492	Sharma	Sanjana	ssharm44
	0870121	McEwen	Tyler	Tbmcewen
2	0880562	Booth	Tyler	trbooth
	0698382	Walther	Troy	tawalthe
	1092015	Bagga	Harshit Kishankumar	hbagga
	0670448	McPhee	Tyler	Tmcphee
3	0666558	Hayer	Jagnoor	jshayer
	0869016	Subedi	Tek	tsubedi1
	0860228	Matharu	Prabhjot	psmathar
	0865374	Obuala	Inemo	Ilobuala
4	0680218	Baath	Sundeep	ssbaath
	1091474	Suresh Nair	Aswin	asuresh1
	0904521	Thakur	Adityasingh	athakur1
	0669641	Kasim	Abdulbasit	aakasim

Find Your Team-mates

Group ID	Student ID	Last Name	First Name	Email
5	0680891	Greer	Andrew	aagreer
	0570895	Rusnak	Paul	prusnak
	0881208	Charania	Aqeel	aacharan
	1094343	Jestine	Abit	ajestine
6	0873798	Solanki	Udbhavsinh Manharsin	usolanki
	1158323	Kathuria	Anukaran	akathuri
	0651354	Lamouchi	Mehdi	mlamouch
	0871347	Thanki	Dhavalkumar	Dathanki
7	0648737	Olapade	Joseph	jolapade
	1094078	Rajesh	Aditya	arajesh
	0869692	Lakkad	Divya	dplakkad
	0870628	Jaison	Akhil	ajaison
8	1091345	Rudhra	Raghav	rrudhra
	0319196	Ahmad	Muhiuddin	mahmad
	0866680	Webb	Stephen	swwebb
	0872906	Faldu	Bhavya Kantilal	bfaldu

Find Your Team-mates

Group ID	Student ID	Last Name	First Name	Email
9	0669651	Minhorst	Marcus	mtminhor
	0904994	Manoj	Jithu	jmanoj
	0864683	Bhatt	Nisarg	nubhatt
	0872908	Patel	Jay Laljikumar	Jpatel22
10	0889581	Koniouchine	Kenneth	kkoniouc
	0890992	Godase	Chetan	cgodase
	0892995	Trinh	Dong Duong	dtrinh1
	0691751	Xing	Yaohan	yxing1
11	0870240	Sajith	Nandith	nsajith
	0696399	Pinney	Nicholas	nepinney
	0903170	Muhammad	Shakeel	smuhamm2
	0650414	Okey-Ikeri	Divine	dcokeyi

Project Goals

- Implement an ML model using a data set in any domain
- Tune to select the best model
- Serve the model using FLASK + html
- Design a Dockerfile to construct a Docker image for the project
- Deploy the project on an IAAS model
- Write a report following ACM format

Extra Points

- [Bonus: 20% points] One webpage to store/retrieve inferred data to/from Google Cloud SQL.

- [Bonus: 40% points] Google Kubernetes Engine.

Checkpoint 1

❖ Date: November 05, 2020

❖ Achievements (Each team is given 7 minutes to run demos):

– Implement an application employing one ML algorithm before tuning to select the best model;

– Design a website to serve the application using FLASK and html with some features as follows:

- (a) One main webpage to present the application, such as datasets, and ML algorithms, functionalities, etc.;

- (b) One webpage to introduce about the team including information of team members, job allocation, etc.;

- (c) One webpage to serve model's inference;

- (d) **[Bonus: 20% points]** One webpage to store/retrieve inferred data to/from Google Cloud SQL.

❖ 20% [+ 20%] of total marks of the project

Checkpoint 2

❖ Date: November 17, 2020

❖ Achievements (Each team is given 7 minutes to run demos):

- Construct a Dockerfile for deployment preparation;

- Deploy the project using:

  • (a) Google Compute Engine, an IAAS model;

  • (b) **[Bonus: 40% points]** Google Kubernetes Engine.

❖ 20% [+40%] of total marks of the project

Project Submission

❖ Submission:

   – 01 report: "project_groupID_paper.pdf" (10% of total marks)

   – 01 PowerPoint file: "project_groupID_slides.pptx" (10% of total marks)

   – 01 project repository: on Github (20% of total marks)

      • 01 compressed file of the repository: "project_groupID_codes.zip" (to make sure you won't edit after the deadline)
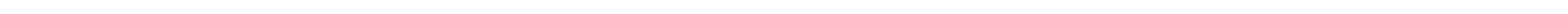
❖ Deadline: Nov. 22, 2020 (11:30 PM)

Project Presentation

❖ 20% of total marks of the project

Group ID	Date
1	
2	Tuesday, November 24, 2020
3	
4	

Group ID	Date
5	
6	Thursday, November 26, 2020
7	
8	

Group ID	Date
9	
10	Tuesday, December 1, 2020
11	

A Marking Rubric

	Percentage	Important dates
Checkpoint 1	20 [+20]	November 05, 2020
Checkpoint 2	20 [+40]	November 17, 2020
Report paper	10	November 22, 2020 (11:30 PM)
Slides	10	November 22, 2020 (11:30 PM)
Codes	20	November 22, 2020 (11:30 PM)
Presentation	20	24/11-01/12

Q&A