

Comprehensive Design and Analysis Project (IT 405)

Group Assessment File

Project ID : 069

Supervisor : Mr. Nuwan Kodagoda

Co-Supervisor: Ms. Kushnara Suriyawansa

Project Title:

MOOCs Recommender Based on User Preference, Learning Styles and Forum Activity
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Group Details:

Student ID	Student Name
IT16032798	Liyanage A.Y.K.
IT16051980	De Silva W.A.T.P.
IT16004382	P.H.P.S.L. Pathirana
IT16005372	S.B.M. Hilmy

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Student Assessment File

Project ID : 069

Student ID : IT16032798

Student Name : Liyanage A.Y.K.

Research Domain: Parallel Processing, Machine Learning

Project Title

MOOCs Recommender Based on User Preference,
Learning Styles and Forum Activity

Project Sub Title

Devising an architecture to classify MOOCs parallelly with higher
efficiency

Individual Component Abstract

While training an individual model in Machine Learning parallelly is not highly effective, classifying a huge set of data parallelly by using an already trained model can yield a lot of benefits. Given that our research implementation is centered around MOOCs provided by a couple of major MOOC providers such as Coursera, it is important that we implement the classification process of videos to utilize the benefits that come with parallel processing such as reduced duration, and full utilization of available hardware resources such as memory and CPU. Therefore, I plan to implement an orchestrator that is capable of splitting thousands of video files into individual frames and classify them parallelly using pre-trained classifiers and models as service-workers. Ultimately, the classifier-orchestrator will be capable of analyzing the output of numerous service-workers to and arriving at a conclusion on a per video basis even though the frames are classified individually and independently

Elaborating furthermore, the end goal is to classify a single video file by parallelly analyzing the individual frames as opposed to going through each frame one by one where the classification process is aware of the previous output. Therefore, by introducing an orchestrator responsible of splitting up the videos and handing them

over to classifiers that act as service-workers, we effectively make the whole process distributed and highly scalable as well.

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Research Domain:

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Individual Component Abstract

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Project ID : 069

Student ID : IT16004382

Student Name : P.H.P.S.L. Pathirana

Research Domain:

Project Title

MOOCs Recommender Based on User Preference, Learning Styles and Forum Activity

Project Sub Title

Analyze and classify Newer and complex types of MOOC video styles

Individual Component Abstract

Nowadays, there are countless MOOC courses in the Internet with various topics that have been designed to broaden our knowledge. One of the most powerful tools for effective learning are online videos.

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Student Assessment File

Project ID : 069

Student ID : IT16005372

Student Name : S.B.M. Hilmy

Research Domain:

Project Title

MOOCs Recommender Based on User Preference,
Learning Styles and Forum Activity

Project Sub Title

Online forum thread discussion analysis to aid in recommending MOOCs

Individual Component Abstract

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