

Project Kick-Off Document

Group Name: Call By Riza

Project Name: Stream Data Analysis

1.Description

In this project, the aim is to develop a software for streaming data analytics. The input to the software is a set of streaming data resources. The software will provide a set of functionalities including statistical analysis, such as counting, aggregating and predictive analytics/data mining functionalities on the streaming data.

The contribution of the project is basically due to analytics capability. The idea is to provide a set of functionalities common for different types of streaming data, and to design/develop an expandable environment with user defined functionalities.

The end-product will be a web/desktop software, possible also having a mobile device app, involving a server module.

The success of the project will be measured through as to whether the following abilities are fulfilled

- ability to process at least one data stream
- ability to provide a basic set of statistical functionalities
- ability to support developing new functionalities

2. Workpackages

WP	Term	WP title	Estimated number of man-month
1	491	Process Infrastructure Module	6
2	491	Process Management Module	8
3	491	Data Analytics Layer Module(v1)	4
4	491	User Interface Module	2
5	492	Admin Interface Module	4
6	492	Developer Interface Module	4
7	492	Data Analytics Layer Module(v2)	4
8	492	Web Application	4

BONUS : Writing an academic paper about project

BONUS : Mobile Application of project

3.Detailed Descriptions of High-Level Workpackages

WP1 - Process Infrastructure Module

- Data receiving module from stream
- In which windows data will be received from stream
- Multiple resources of data will be used

WP2 - Process Management Module

- Input definition / declaration
- Data Storage
 - Long term storage
 - Short term storage
- Creating Database

WP3 - Data Analytics Layer Module(v.1)

- Aggregation of objects
- Count of given object
- Frequency count

WP4 - User Interface Module

- Calling existing data analytics funtions
- Providing Input source&keywords for process management

WP5 - Admin Interface Module

- Accesing Database
- Account Management
- Database Monitoring

WP6 - Developer Interface Module

- Adding new analytics layer function

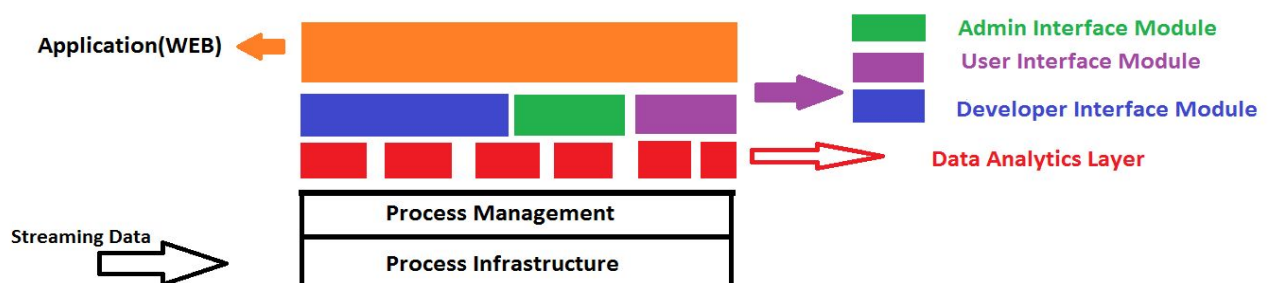
WP7 - Data Analytics Layer Module(v.2)

- Comparison of Objects in manner of increasing& decreasing trends
- Future Prediction by using Machine Learning

WP8 - Web Application

- Enable Client-Server Interaction
- Graphical representation of analytics output.

For given Work Packages this chart is provided for further understanding of Project :



4. Risk Assessment

Risk #	Description	Possible Solution
1	Stream Data Insufficiency	We can generate random data and simulate them like real-time data
2	Unsuitable built-in library	If we cannot find built-in library, we will implement a new library for our purpose.