Wits University

School of Electrical and Information Engineering

ELEN7046 - Software Technologies and Techniques

Group Project: Big Data Visualization

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Summary

This report presents the work done by Group 2 in response to the project brief for ELEN7046: Software Technologies and Techniques. The report will broadly focus on the following topics:

- The Methodology followed to execute the project;
- The Architecture of the solution developed for the project; and
- The different technologies used to deliver the solution.

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TBC

2 Literature Review

3 Stakeholder Concerns - Big Data

3.1 Collection

3.2 Processing

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4 Methodology

In order for group two to successfully deliver this project, a development methodology based on IBM Rational Unified Process (RUP) was followed albeit tailored to cater for the specific needs of this project.

The diagram below depicts the IBM RUP model:

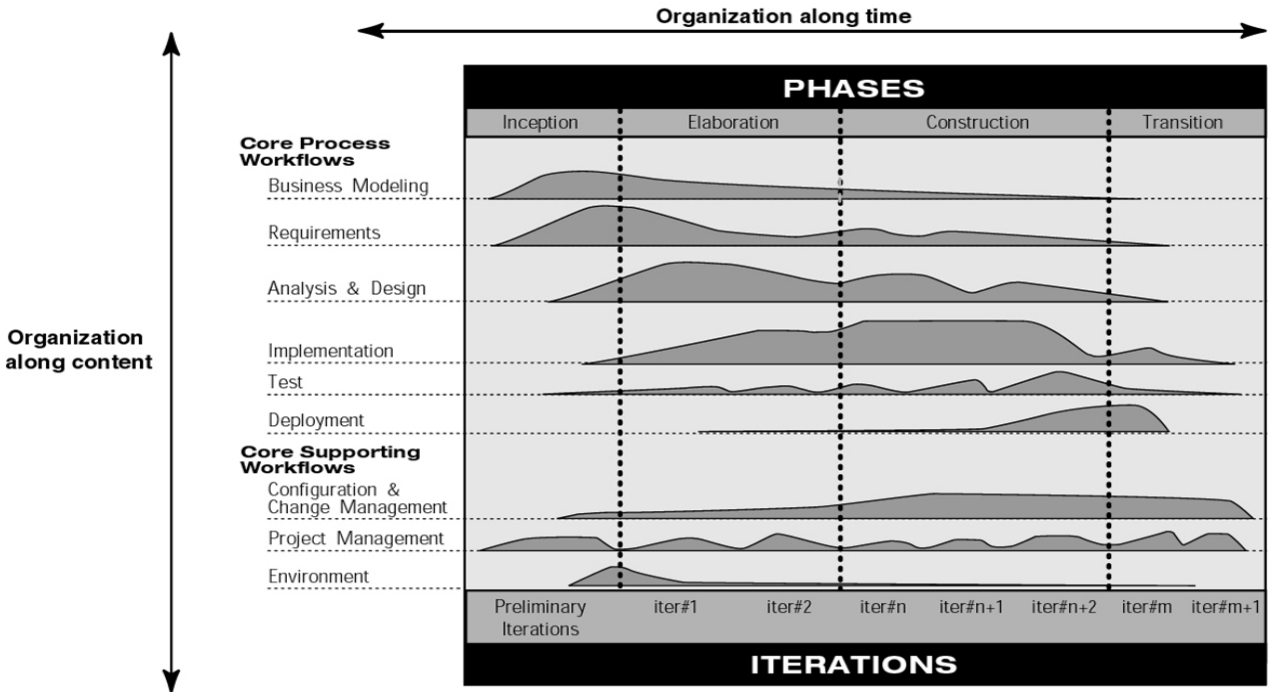

Figure 1: IBM Rational Unified Process (Source: RUP, Best Practices for Software Development Teams)

5 Assumptions and Constraints

5.1 Tweet Locations

The group encountered tweet location issues.

5.2 Pros and Cons determinations

Rudimentary algorithm for determining Twitter statements (tweets) that are against or for a particular candidate was adopted...

6 Success Criteria

7 Architecture of the Solution

7.1 High Level Design: Component Architecture

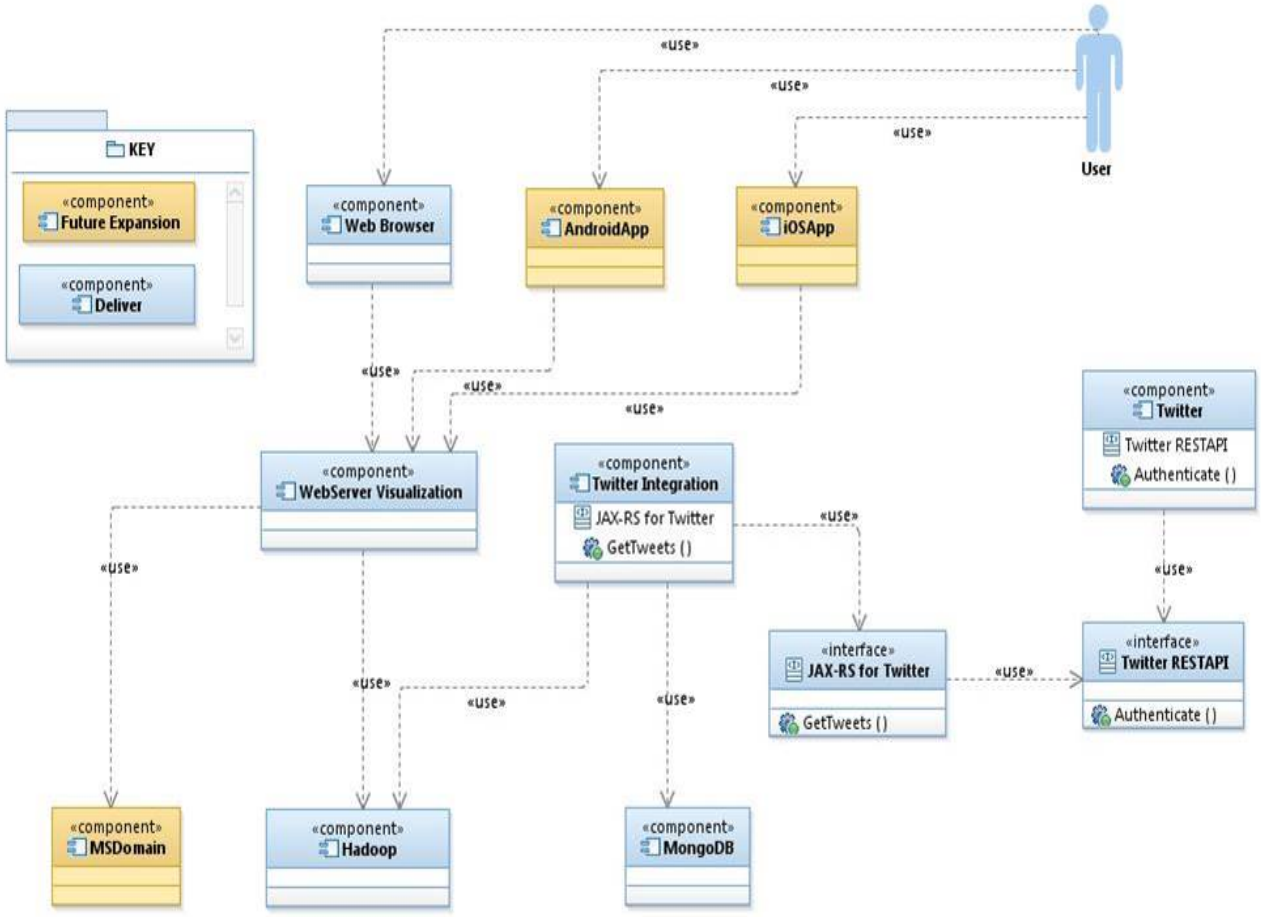

Figure 2: High Level Component Model.

7.2 Detailed Design: Class Diagrams

7.2.1 Data Acquisition (Batch)

7.2.2 Data Acquisition (Streaming)

7.2.3 Data Processing

7.2.4 Data Visualization

7.3 Operational Model: Infrastructure Design

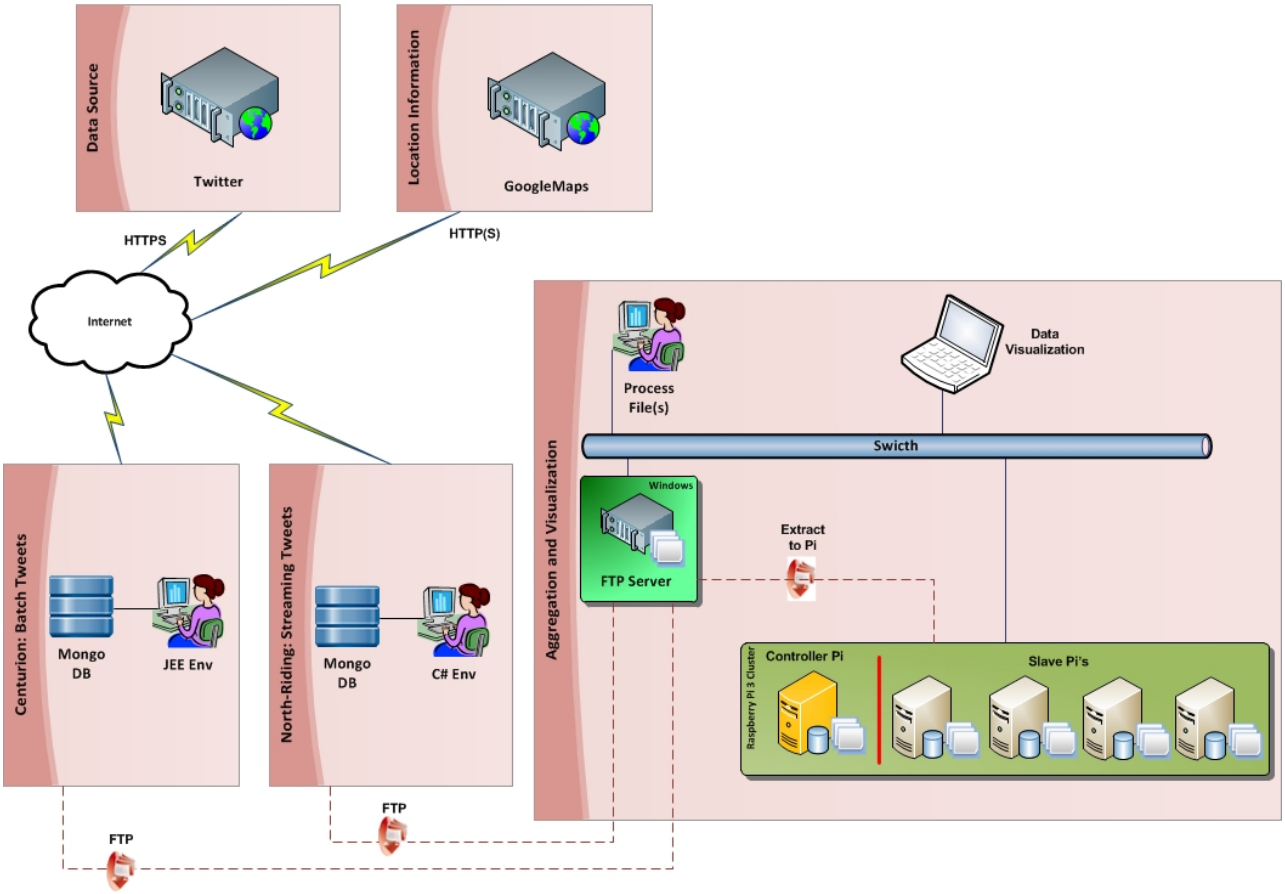

Figure 3: Operational Model: Phyical

- **Personnel Shortfall:** Inexperience in the management team is a potential risk, due to the possible oversight and inaccuracies . Leach does not have

sufficient IS Management experience*(pg 502 paragraph 4)*, the project may suffer if leach continues at his current position

8 Conclusion

8.1 Control Situation

Before we come to a conclusion and define the proposed actions we must first define the archetypical control situation. Based on..

References

[Van Vliet, 2008] Van Vliet (2008). Software Engineering Principles and Practice

[Frederick P. Brooks, 1975] Frederick P. Brooks (1975). The Mythical Man-Month