# Project Phase II: **CYBERMINER**

# Architecture Specification

Versions 2.0

CS/SE 6362 Advanced Software Architecture (Fall 2015)

**Submitted to:**

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## Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Version | Description | Author(s) |
| 11/08/2015 | 1.0 | Interim version of Cyberminer system architecture | All |
| 12/1/2015 | 2.0 | Update version with class diagram and use case diagram | Barbara, Sruthi |

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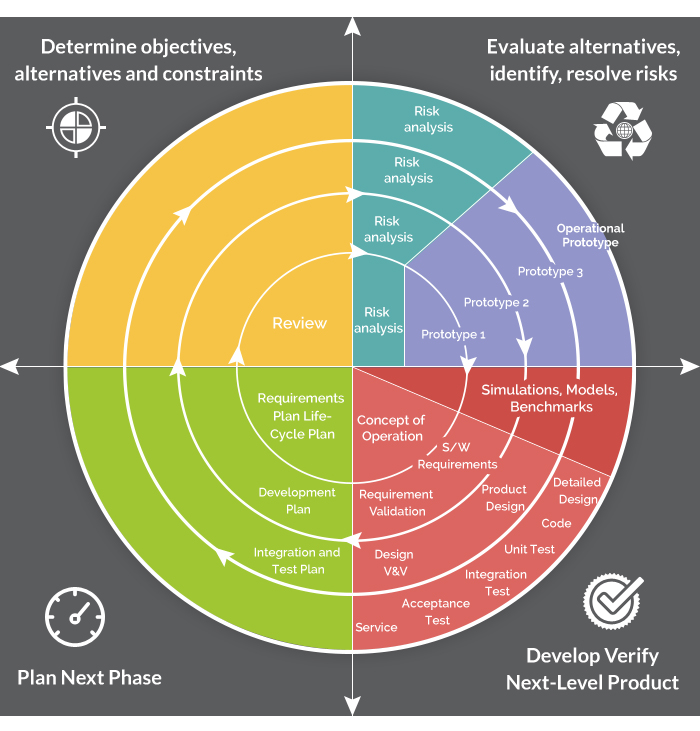
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## Project Organization

## Process Model

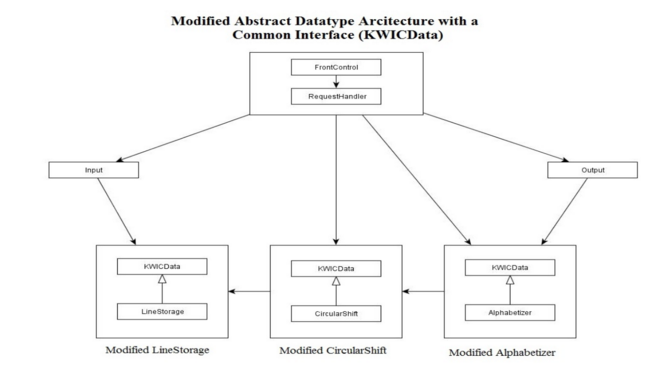


## Work Schedule

|  |  |  |
| --- | --- | --- |
| Date | Task | Responsibility |
| 11/05/2015 | Requirements Gathering | Sruthi, Twinkle, Maryellen, Barbara |
| 11/08/2015 | Software Architecture Analysis & Design | Twinkle, Sruthi, Barbara |
| 11/09/2015 | Developers | Twinkle, Maryellen |
| 11/28/2015 | Testers | Barbara, Sruthi |
| 12/08/2015 | User Demo | Barbara,Sruthi, Maryellen, Twinkle |

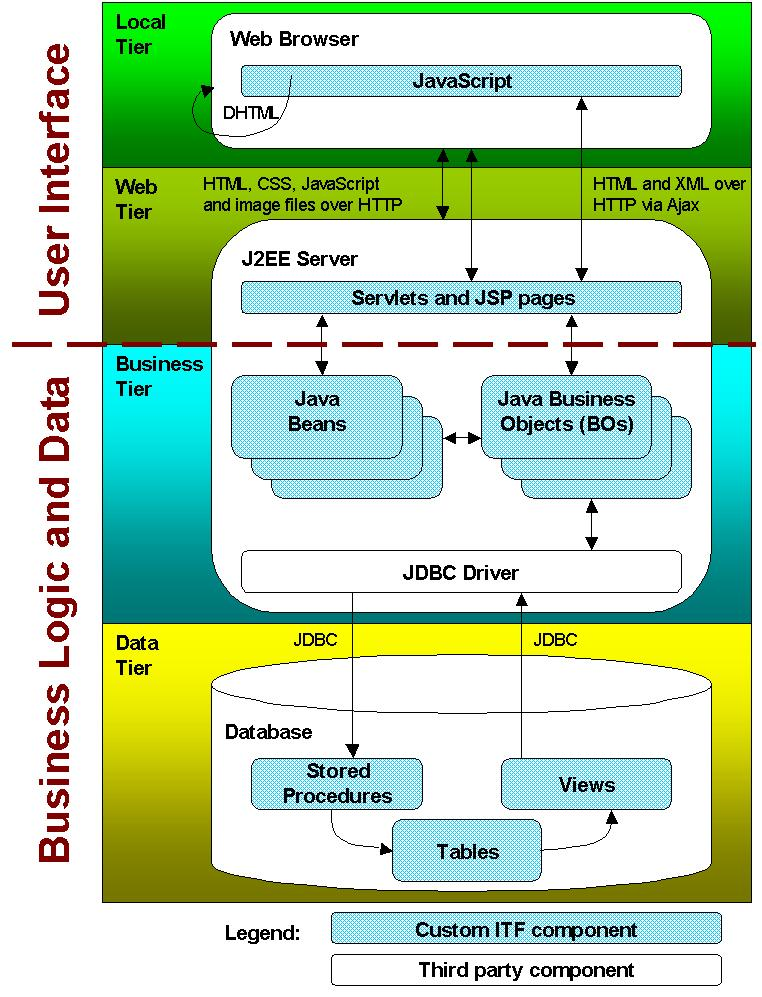
## Software Architecture

## Abstract Data Style (OO-Oriented)



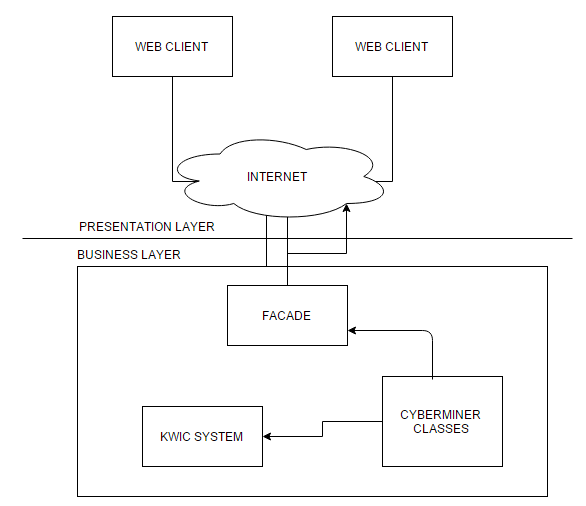
## 3-Tier Architecture

This Architecture based on MVC design pattern is used as basis to build and implement the Cyber miner. The final product of the project will have applet is embedded in web browser using web tier JSP pages which will intern connected to Business Tier with various classes as displayed below in class diagram to perform Cyberminer search system with KWIC system. JDBC with MySql is used to store and retrieve the description and URL after KWIC indexing is complete.



## Design Pattern - Façade pattern

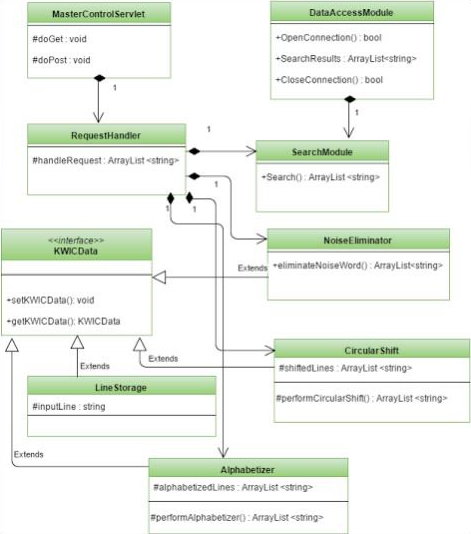
This provides a simplified interface to a larger body of code, such as a class library. In addition, the user can just directly interact with one interface to access both KWIC indexing and cyber miner systems.



## Architectural Views

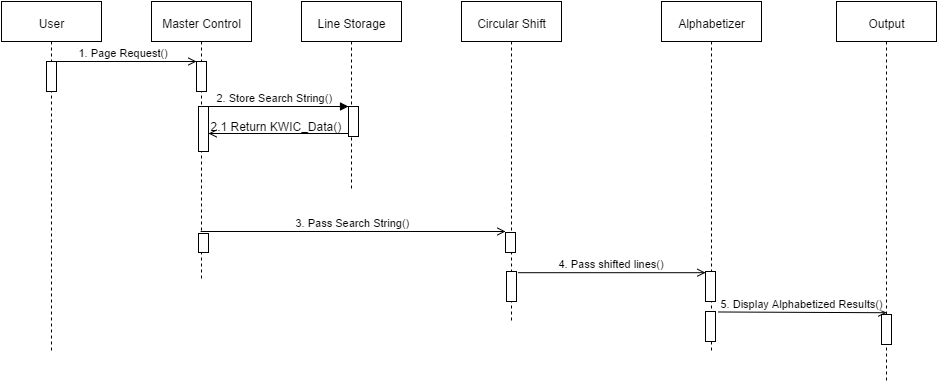
## Logical View

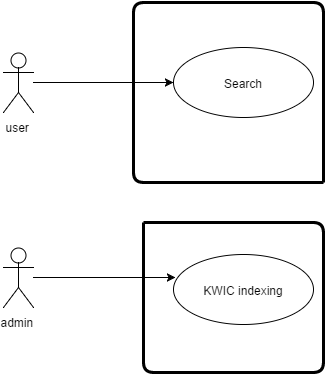
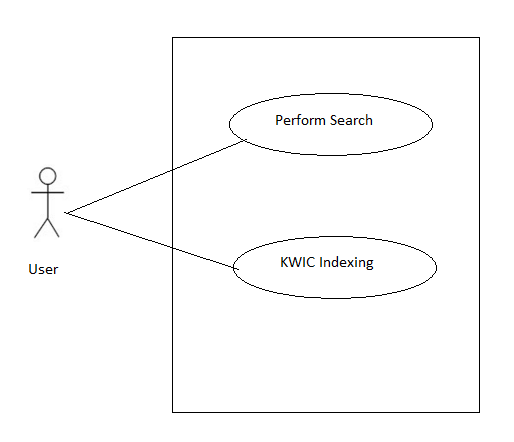
* + 1. **Class Diagram**



## Process View

* + 1. **Sequence Diagram**



* 1. **Use Case View**
     1. **Use Case Diagram- version 1**
     2. **Use Case Diagram- version 2**

## Traceability Matrix

## 

## References

* http://www.utdallas.edu/~chung/SA/syllabus.htm
* *Documenting Software Architectures: Views and Beyond,*P. Clements, F. Bachmann, L. Bass, D. Garlan, J. Ivers, R. Little, R. Nord and J. Stafford, MA: Addison-Wesley, 2003