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| PROJECT Design  Week 4 Assignment | ABSTRACT  This document was created for UMUC Course, CMSC 495, and analyzes aspects of the (TNC)  Group 3 Members  Name: Christiano, Andrew  Name: Fernandez, Yrume  Name: Orwick, Brian  Name: Sell, Julia  Class: CMSC 495 - Current Trends and Projects in Computer Science Professor: Dr. Hung Dao  Due: 16 September 2018 |

**Version Control**

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| Revision # | Date | Name | Descriptions | Contact Info |
| TNC\_0001 | 9/13/2018 | Julia Sell | Created | selljm14@gmail.com |
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**Class Diagram**

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*Figure 1 – Class Diagram*

\*\*need to update by replacing each subsystem with the corresponding class complete with its name, attributes, and methods, and to include o-o properties like inheritance

**Event Trace (or sequence) diagram**

**Scenario 1:**

start-up diagram

initializing objects

establishing connections with databases

establishing connections with external resources

**Scenario 2:**

shut-down diagram

**Scenario 3:**

normal operation diagram

**Scenario 4:**

error-handling diagram

**Psudocode**

-for each method in a class to describe function

-must correspond with the sequence diagram – a class for each column

class to scrape articles from online news organizations

Scraper

{

method to generate news

generate\_news()

method to pull full text articles from different news organizations

get\_articles()

method to parse the articles for metadata

parse()

method to pull articles from the web and return key metadata

download()

}

class to create and organize a database of news articles and metadata

Database

{

method to create a table in the database

create\_table()

method to inset a new entry into the database

db\_insert()

method to update an existing entry in the database

db\_update()

method to query the database for information

db\_query()

regularly scheduled update to pull new articles

mass\_update()

}

class to define the web page for the application

Web

{

method to display the contents of the database for the user

getDB()

}

**Unresolved Risks**

Potential risks when operating the system are:

1. The system may fail to retrieve information from trusted websites (due to https certificate error, no internet connection, or other unknown circumstances)
   1. Mitigation: System will check for error code 200 to ensure website is available prior to submitting get-request for html.
2. System may fail to provide adequate information if fake-news goes viral and a number of articles are found on the internet based on false information.
   1. Mitigation: System will have a fake-news option that will lower the trustworthiness of the article.