

From Left To Right: Mahrous ,Elsheshtawi,Elazab, Darwish

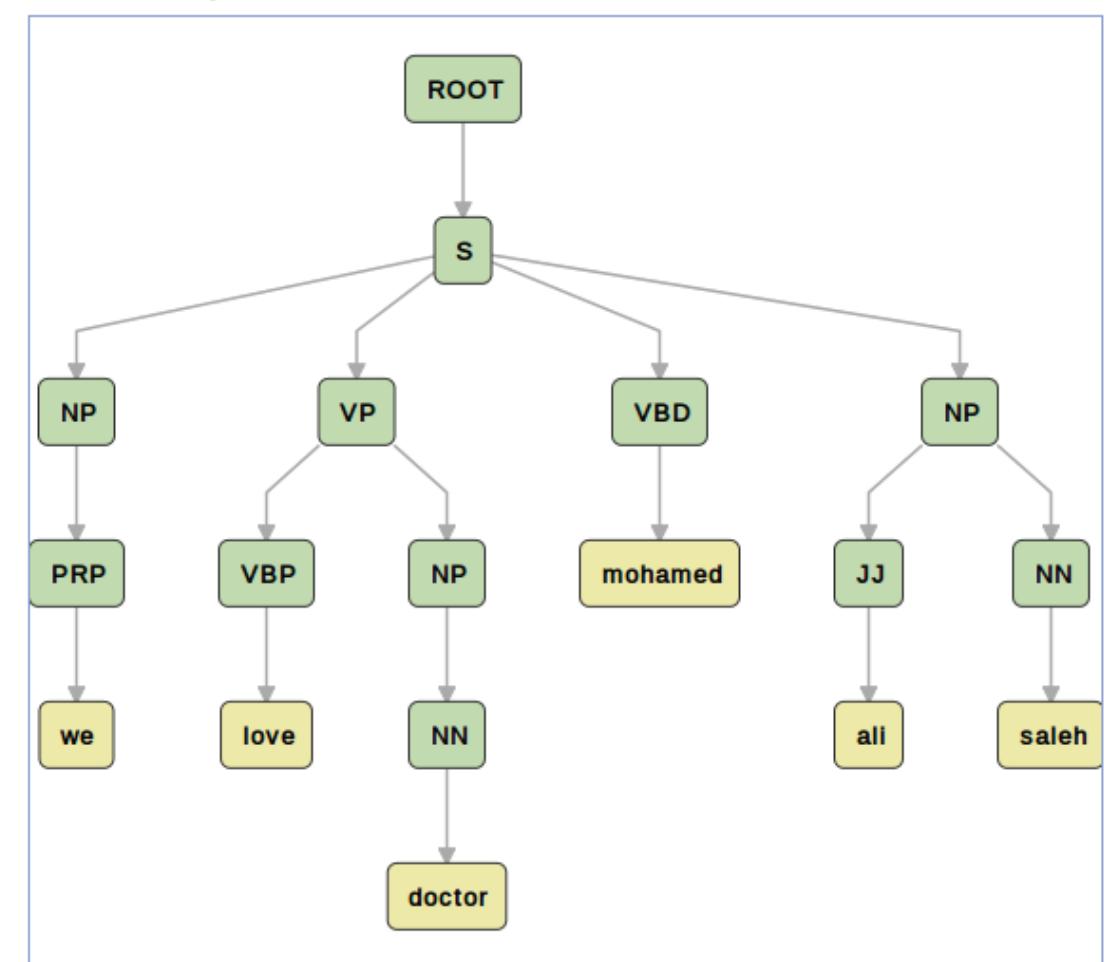
We found a general system architecture for automating many human jobs specially the systematic ones. Our system uses Natural Language as an interface with customers, keeping the old interface (human language) while turning to automation. It uses machine learning to learn more about customers to provide better experience over time.

GenWeb is our first application using that architecture, it is a new self-contained product that is basically considered as a website that has the ability to make decisions and interact with the user without a third party, that's done by using an AI system that is able to understand what the user need and make decision to provide what the user asked for.

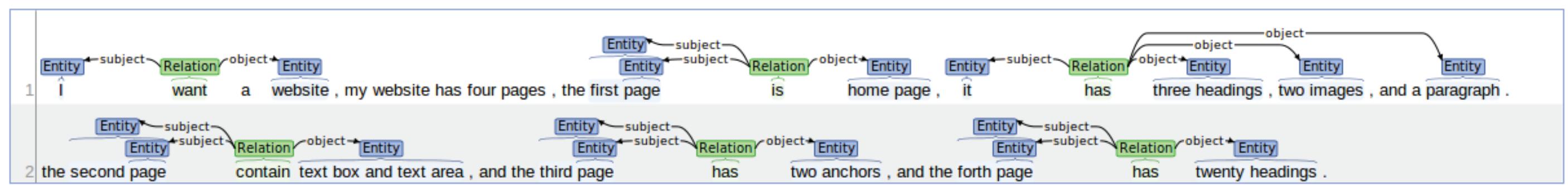
GenWeb is an alternative solution for templates, the basic idea is to allow any user regardless of his background to make his own unique website without repeatedly used templates.

GenWeb is able to create & generate tens of unique and independent website for multiple users in an efficient way, in addition to having the luxury of editing and customizing the generated website according to the user needs.

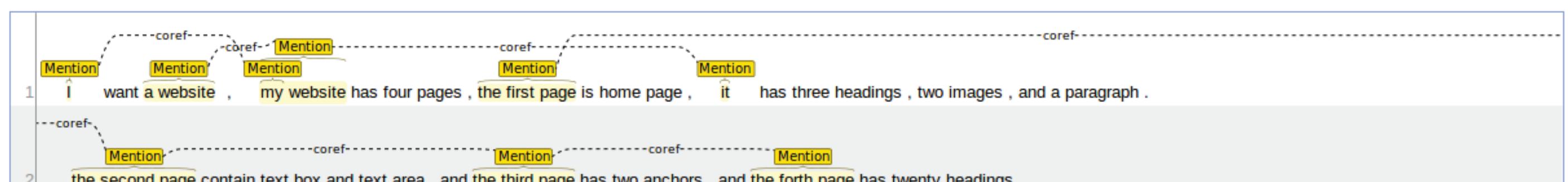
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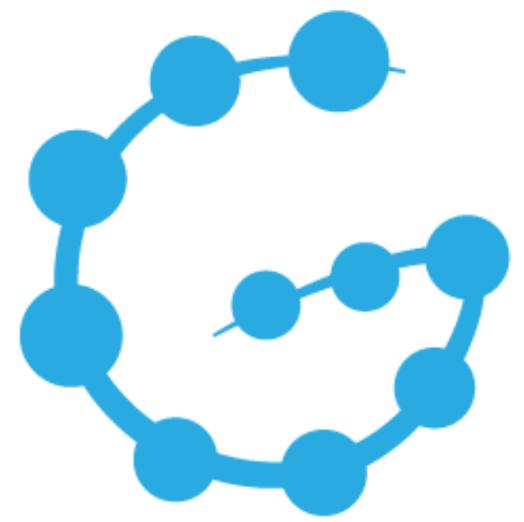


Open IE:



Coreference:





Genweb

PROPOSAL

9/30/2016

ABSTRACT

This document is designed to define the general idea of the senior year graduation project.

Presented to:

Dr. Mohamed Ali Saleh.



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1. Our Team

1.1 Information

Consists of the following four members:

Name: Ahmed Gamal Mohamed Elsheshtawi.

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Additional Role: Documentation.

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E-mail:

Phone Number: 01271208907

Additional Role: Integration.

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Phone Number: 01069141204

Additional Role: Coordination.

Name: Mohamed Mamdouh Ahmed Elazab.

E-mail:

Phone Number: 01113202019

Additional Role: Testing.



2. Project Overview

2.1 Objective

GenWeb is a new self-contained product that is basically considered as a website that has the ability to make decisions and interact with the user without a third party, that's done by using an AI system that is able to understand what the user need and make decision to provide what the user asked for.

GenWeb is an alternative solution for templates, the basic idea is to allow any user regardless of his background to make his own unique website without repeatedly used templates.

2.2 Outcome

GenWeb is able to create & generate tens of unique and independent website for multiple users in an efficient way, in addition to having the luxury of editing and customizing the generated website according to the user needs.

3. Project Description

3.1 Purpose

GenWeb is designed and developed to minimizes the difficulties for any inexperienced customer who wishes to create his own website to fit his own need, on the other hand GenWeb is a perfect tool to any developer who seeks singularity.

3.2 Problem

The essential problem here is that you can hardly find a different and unique website that match the casual user/customer needs what's make it hard for the most of us nowadays to distinguish and having a connection with these website anymore.

3.3 Solution

The answer was an intelligent system that can understand the user/customer needs and generate a website the matches these need what's made those generated website different and unique.

So we designed and developed a system that interact with the user/customer through a website that allow the user/customer to write his requirements and needs in a paragraph so that the AI system can analysis and extract the required information to generate the required website, after the generation the user/customer will be shown



the proposed website and he has the option to edit or customize it according to his needs.

3.4 Target Customer

Our customers is basically two kinds of website actor which are:

I. Developer with technical background.

Making the process of developing websites much easier, and provide an alternative solution for templates.

II. Owner without technical background.

The process of building websites for regular user without technical background is complicated and costing, but not anymore with the aid of GenWeb.

4. Relating Projects

I. SQUARSPACE.

II. WIX.

III. The Grid

4.1 Competitive Edge

Website	Technology	Usage
SQUARESPACE.	Templates	Free
WIX.	Drag & Drop	Free
The Grid	AI Builder	Paid
<i>GenWeb</i>	<i>AI Builder</i>	<i>Free</i>

5. Time Line

Phase	Progress Type	Duration
One	Design	3 Months
Two	Implementation	5 Months
Three	Refactoring	2 Months



Phase One: Design the algorithms and GenWeb website needed to establish the main concepts of GenWeb.

Phase Two: Implementing, integrating and executing the designed components to make sure that they do what they are built for.

Phase Three: Enhancing the components of GenWeb to improve the response time, ease of use, etc...

6. Supporting Products

- I. Stanford's Core NLP Suite.
- II. Code 95.
- III. Web Crawler API.

7. Conclusion

GenWeb is considered one of the technology leaps, not to mention it's dedicated purpose in making the website development is much easier for anyone who wishes to create and develop his own website to match his own needs.

8. Citation

This document is designed according to File Format for IEEE 802.11 Documents.

Fonts Used: Calibri Light for headings.

Calibri for body.

What we have done

4.1 Ideation

We searched for an idea that is considered not a main stream for a graduation project, after a while we chose to build an NLP agent to understand the human language and make decision through his knowledge.

4.2 Learning

We decided what fields that we need to learn to accomplish the project in the way what we needed to, we are constantly learning NLP, compiler, machine learning.

4.2 Software requirements

We documented SRS v1.0 to describe our project technical, non-technically and its overview.

4.3 Design Document

We documented SDD v1.0 and SDD v2.0 to describe the project functionality.

4.4 Implementation

We successfully built an agent that has the capability of word and sentence analysis and description of web development related requirements.

4.5 Prototype

We built a simple interface to imitate the functionality of both NLP engine and web generator engine in the real environment.

4.6 Implementation

4.6.1 Portal

we released the first version of it. Portal provides the interface between the user and our system.

4.6.2 NLP

we released the first version of it. NLP has the capability to identify both words and sentences, in addition to relating them together.

4.6.3 Implementer

we released the first version of it.

4.6.4 Machine learning

we released the first version of it. Machine learning acts as the adaptive memory for the NLP.

4.7 Integration

The current version exhibit the integration of portal, NLP and implementer.

Software Requirements Specification

for

<GENWEB>

Version 1.0 approved

Prepared by <Genweb Team>

<GenWeb>

<24-9-2016>

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Revision History

Name	Date	Reason For Changes	Version

1. Introduction

1.1 Purpose

GenWeb is designed and developed to minimize the difficulties for any inexperienced customer who wishes to create his own website to fit his own need, on the other hand .GenWeb is a perfect tool to any developer who seeks singularity.

1.2 Document Conventions

This document is designed according to File Format for IEEE 802.11 Documents.

Fonts Used: Calibri Light for headings. Calibri for body.

1.3 Intended Audience and Reading Suggestions

Developers, testers, professors, supervisors, judging committee.

1.4 Product Scope

GenWeb is designed and developed to minimize the difficulties for any inexperienced customer who wishes to create his own website to fit his own need, on the other hand GenWeb is a perfect tool to any developer who seeks singularity.

2. Overall Description

2.1 Product Perspective

GenWeb is a new self-contained product that is basically considered as a website that has the ability to make decisions and interact with the user without a third party, that's done by using an AI system that's able to understand what the user need and make decision to provide what the user asked for.

GenWeb is an alternative solution for templates; the basic idea is to allow any user regardless of his background to make his own unique website without a repeatedly used template.

2.2 Product Functions

1. Sign up / Log in.
2. Create a website.
3. Edit Website.
4. Upload old project.
5. Download project

2.3 User Classes and Characteristics

1. Mentors & judges.

Professors who are responsible for this product, investors who are interested in this product, judges in competitions.

Required experience: an excellent knowledge about the product technicality & marketing background.

Chapters of interest:

Level of satisfaction: A

2. Developers.

Engineers who developed this product, testers.

Required experience: an excellent knowledge about various programming languages, compilers and natural language processing.

Chapters of interest:

Level of satisfaction: A

3. Users.

End user who is using the product and benefits from its services.

Required experience: basic knowledge of applications and websites usage.

Chapters of interest:

Level of satisfaction: A

2.4 Operating Environment

Our product is web-based application that runs on cloud services.

3. External Interface Requirements

3.1 User Interfaces (Screenshots will be added after finishing srs)

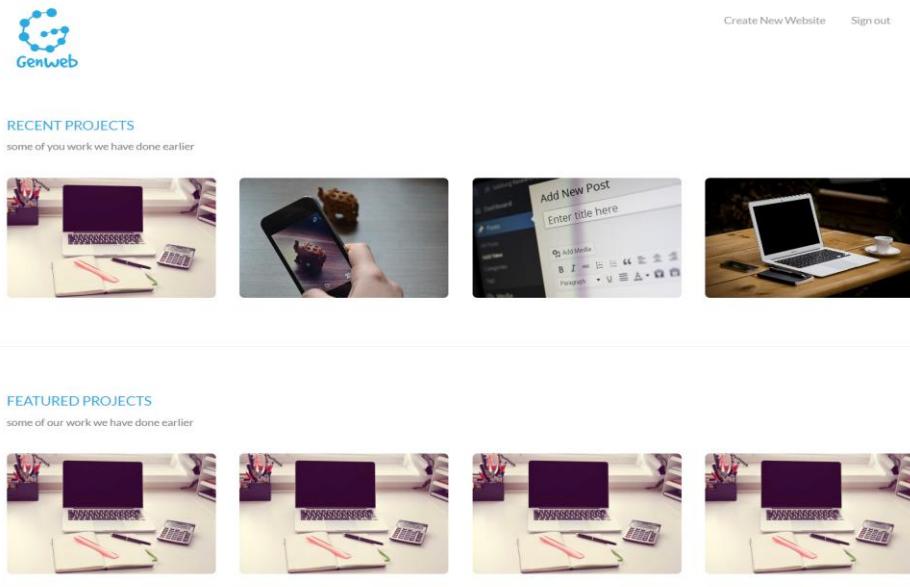
Index Page:

1. The logo of the Application.
2. Sign in /Sign up button.
3. Sections of simple information about Genweb.

Home Page:

1. Create website button.
2. Feature projects section
3. Old projects section.

3.2 Hardware Interfaces



Minimum Requirements:

Client Side:

Processor: Intel Pentium III or AMD - 800 MHz
RAM: 128 MB.
Disk Space: 100 MB.

Server Side:

Processor: Intel Pentium III or AMD - 800 MHz
RAM: 1 GB.
Disk Space: 3.5 GB.

Recommended Requirements:

Client Side:

Processor: All Intel or AMD - 1 GHZ.
RAM: 256 MB.
Disk Space: 100 MB.

Server Side:

Processor: All Intel or AMD - 2 GHZ.
RAM: 2 GB.
Disk Space: 3.5 GB

3.3 Software Interfaces

Client on Internet:

- Web Browser, Operating System (any).

Web Server:

- WASCE (WebSphere Application Server), Operating System (any).

Database Server:

-DB2, Operating System (any).

Development End:

RAD (J2EE, Java, Java Bean, Servlets, HTML, XML, AJAX, PHP), DB2, OS (Windows).

3.4 Communications Interfaces

-Client (customer) on Internet will be using HTTP/HTTPS protocol.

-Client (system user) on Internet will be using HTTP/HTTPS protocol.

4. System Features:

This section is organized on the use cases model elaborated in Fig x.

1.1 Log-in

Scenario:

-Verify the username and password.
-If verified then your Home page appear.
-If not Verified an error message appears and redirect to your login page.

Participating actors: Genweb guest.

-The guest enters username and password.
-Optional to check the “remember me” button.

Exit condition: the now “logged-in” user is referred to “the home page”.

Exceptions:

- If the information is not valid an error message appear.
- If the user is not registered before an error message appear.

1.2 Sign-up

Scenario:

- Verify the information.
- If verified then your Home page appear.
- If not Verified an error message appears and redirect to your login page.

Participating actors: Genweb guest.

Entry condition:

Enter your signup information.
OR: Click the Facebook button.
OR: Click the twitter button.

Exit condition: the now “logged-in “user is referred to “the home page”.

Exceptions:

- If the information is not valid an error message appear.

1.3 Create new website

Scenario:

- Genweb user fill-in a form with data about the required website.
- Genweb user clicks “BUILD” button.

Participating actors: Genweb user.

Entry condition: In the home page Genweb user clicks “CREATE NEW WEBSITE “button.

Exit condition: the required website is delivered.

1.3.1 Build website

Scenario:

- Genweb user clicks “BUILD” button in the Create new website form page.
- The AI engine builds a website to satisfy the Genweb user’s needs.

Participating actors: Genweb user.

-Entry condition after “Create new website “Genweb user clicks the “BUILD WEBSITE “button.

Exit condition: a website is built and previewed to the Genweb user.

1.3.2 Accept website

Scenario:

- Genweb user clicks “ACCEPT” button.
- Genweb user is referred to “Edit content “page.

Participating actors: Genweb user.

Entry condition: Genweb user clicks “ ACCEPT “ button after “Build Website“.

Exit condition: Genweb user is referred to “ Edit content “ page.

1.3.3 Regenerate website

Scenario:

- Genweb user clicks “RE-GENERATE” button.
- “Build website ”is redone.

Participating actors: Genweb user.

Entry condition: Genweb user clicks “RE-GENERATE ”button after “Build Website ”.

Exit condition: a website is built and previewed to the Genweb user.

1.4 Edit content

Scenario:

- Genweb user edits static data (HTML text tags (<a>, <p> ... etc) and pictures).
- Genweb user submits the required data.

Participating actors: Genweb user.

Entry condition:

- Genweb user accepts a website in “Create new website ”.
- Genweb user clicks edit on an old project.

Exit condition: the website is filled with content and saved.

1.5 Preview website

Scenario:

- Genweb user clicks “Preview ”on one of his/her old projects.
- A preview of the required website appears.

Participating actors: Genweb user.

Entry condition: Genweb user clicks “Preview ”on one of his/her old projects.

Exit condition: A preview of the required website appears.

1.6 Download website

Scenario:

- Genweb user clicks “Download ”on one of his/her old projects.
- The server is called to retrieve the previously built site from the database and to compress it into one file.
- A link to that file is made and is automatically downloaded to the user’s machine.

Participating actors: Genweb user.

Entry condition: Genweb user clicks “Download ”on one of his/her old projects.

Exit condition: A compressed file begins to download.

5. Other Nonfunctional Requirements

5.1 Performance Requirements

- 1) Creating the profile page and (login) should not take longer than 5 seconds.
- 2) Creating the website should not take more than 10 min.
- 3) Customization process should not take more than 5 sec.
- 4) The Generated website should look like what the user want by at least 80%.
- 5) Need maximum number of user that try to log in at the same time.

5.2 Security Requirements

1. The web should be secure (member only).
2. The user must agree to share his personal information
3. After the user download the source code it is his own responsibility
4. No other user cannot see what the first user information is
5. Take the website from another website is not allowed without the user approval
6. The user must enter his user name and a secure password and must provide his mail
7. The user can log in with his Facebook account.

5.3 Software Quality Attributes

1. The software should be flexible to the user mistake like misspelling.
2. The software should be reusability and adapt to change
3. It must be user friendly
4. It must contain way of teaching user how to use that product.

5.4 Business Rules

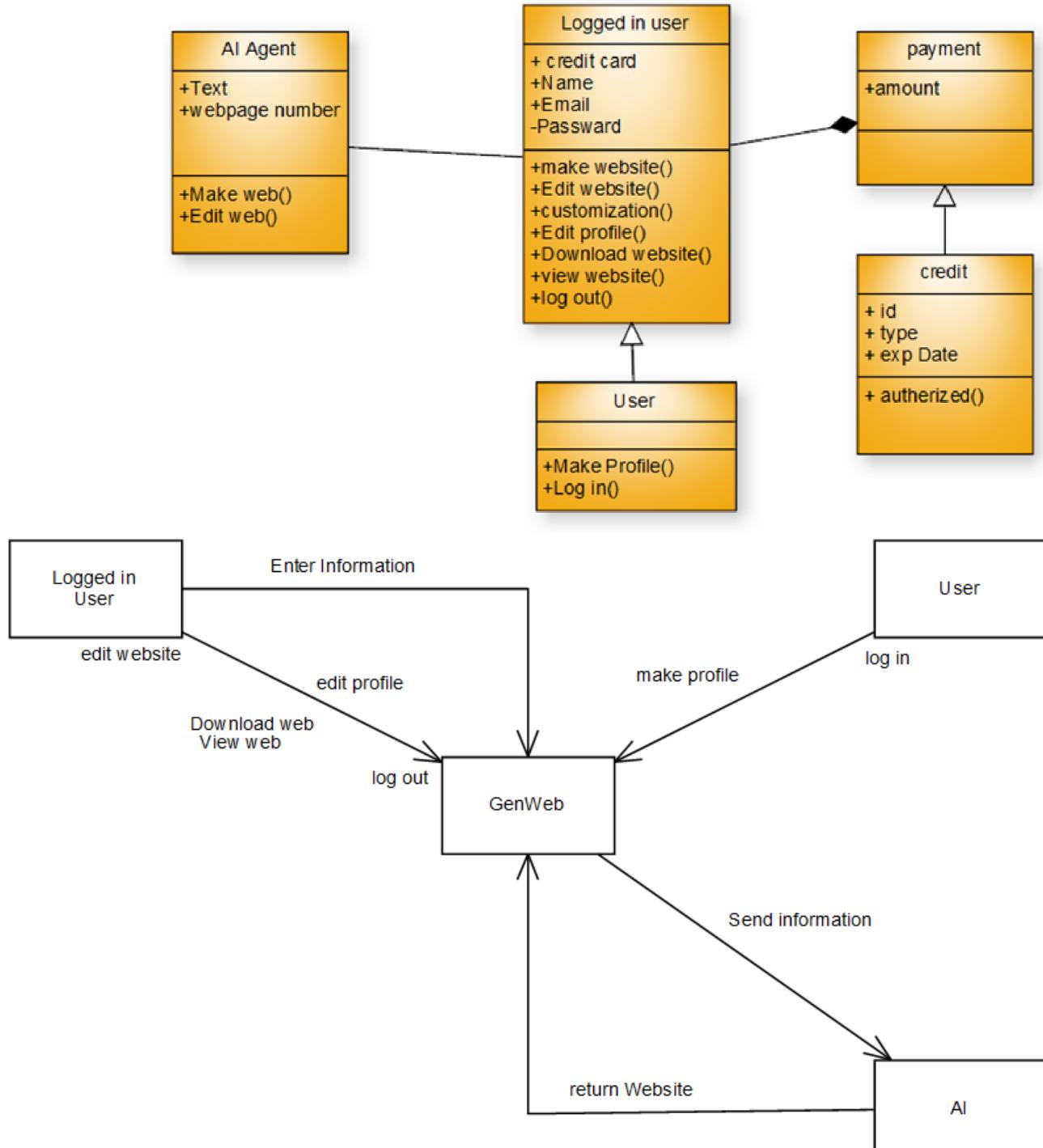
1. Only a logged in user can make website
2. Only a user that is logged in and make a previous website that can edit that website.

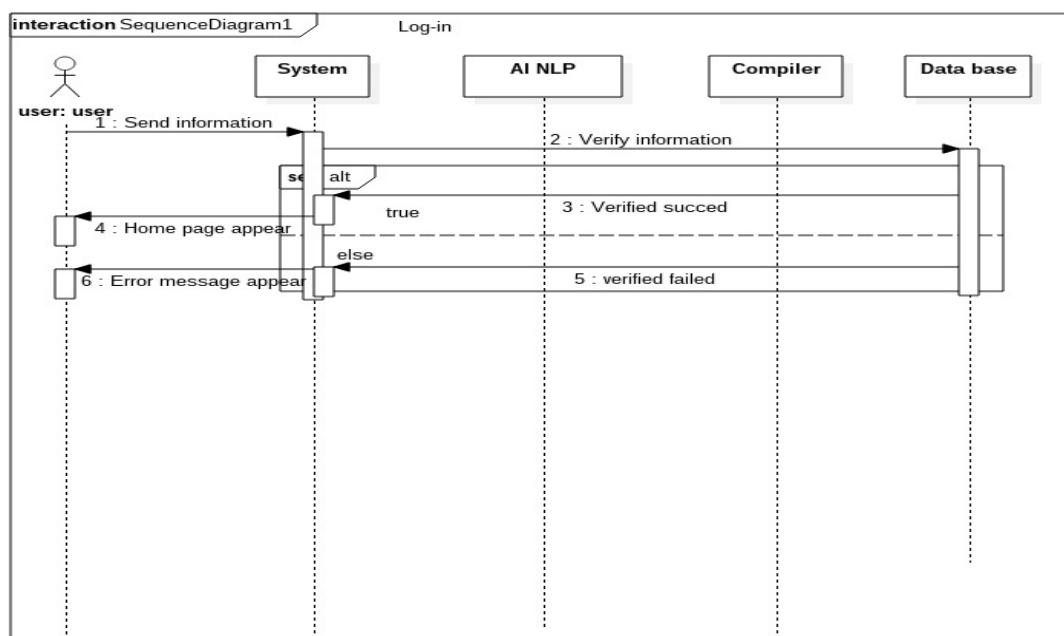
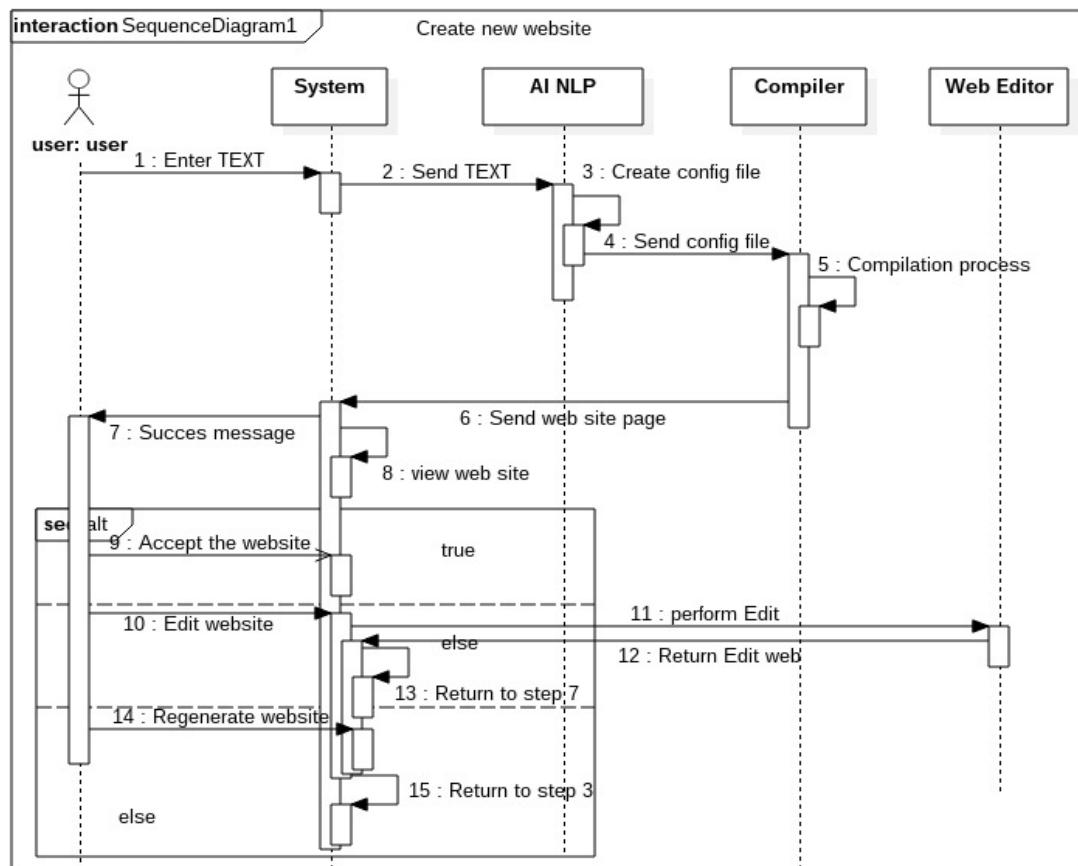
Appendix A: Analysis Models

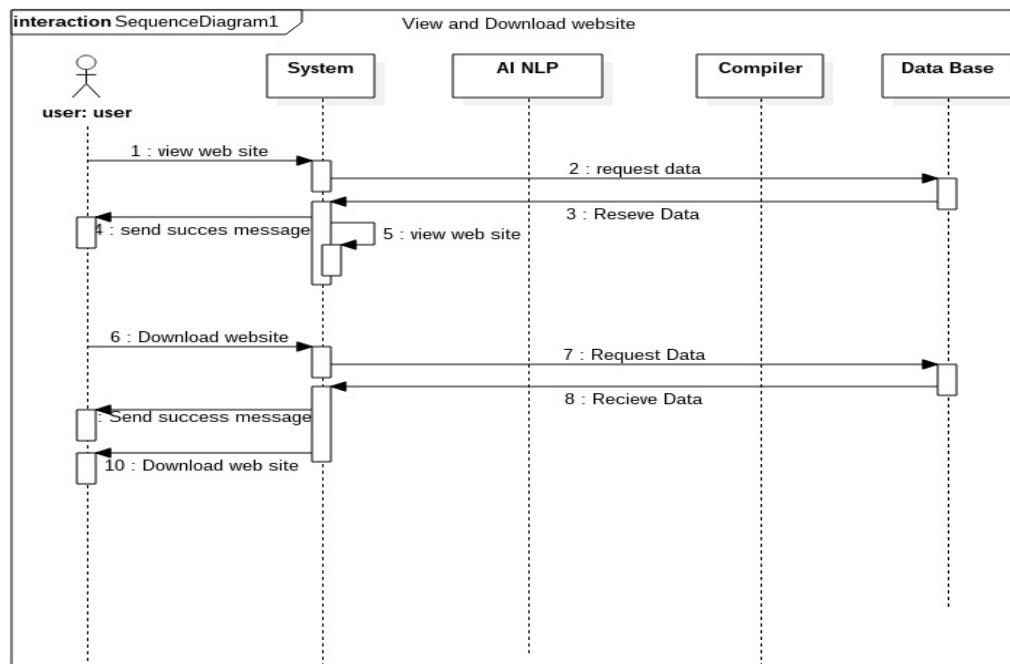
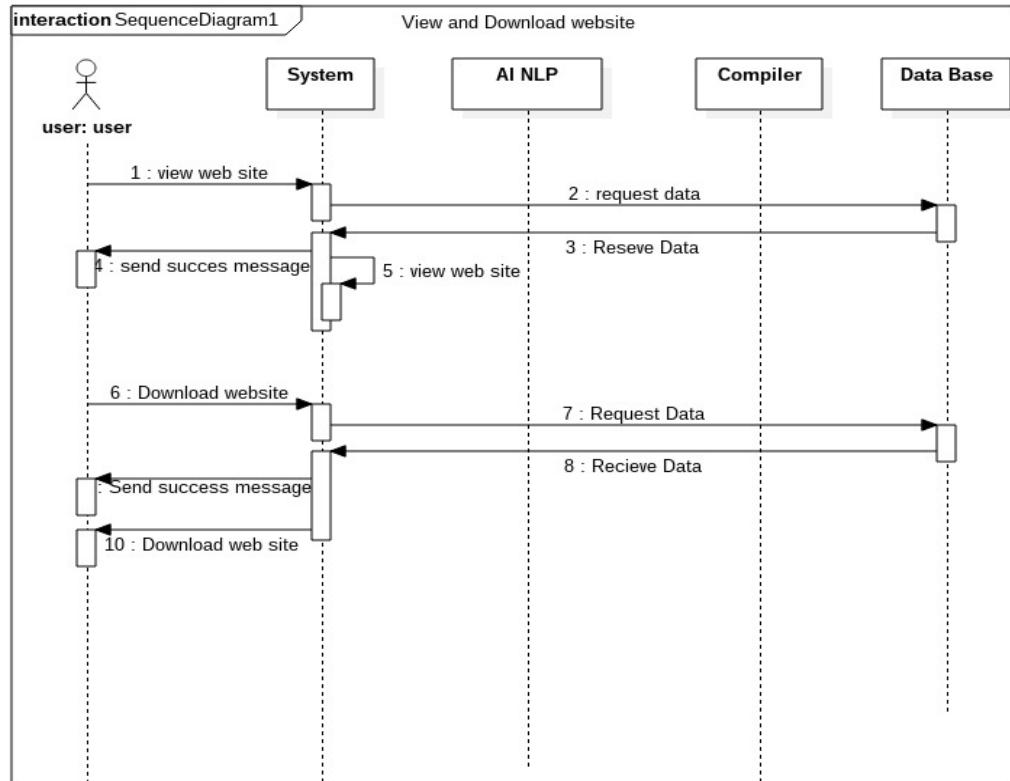
<Optionally, include any pertinent analysis models, such as data flow diagrams, class diagrams, state-transition diagrams, or entity-relationship diagrams.>

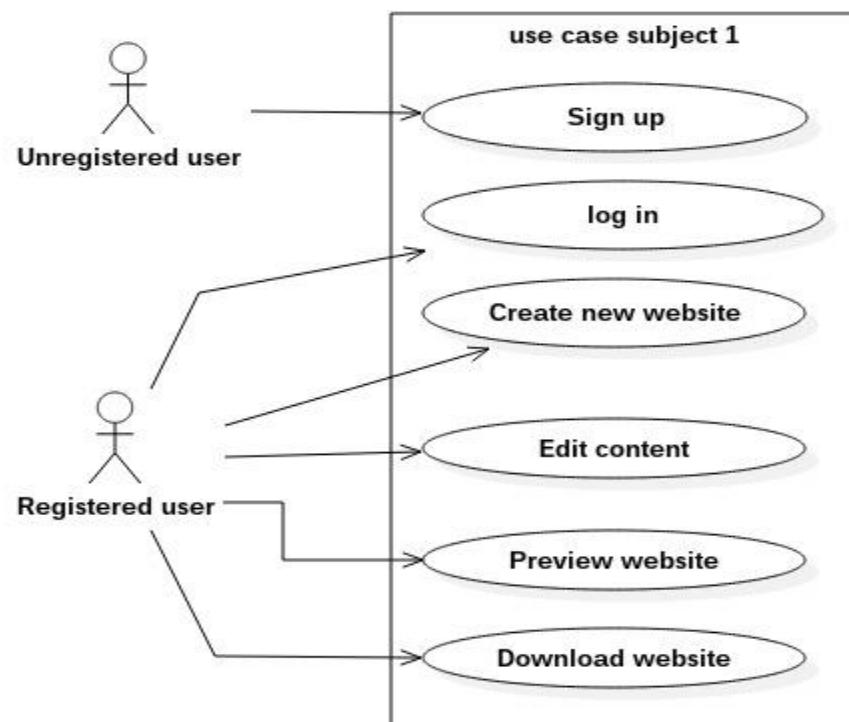
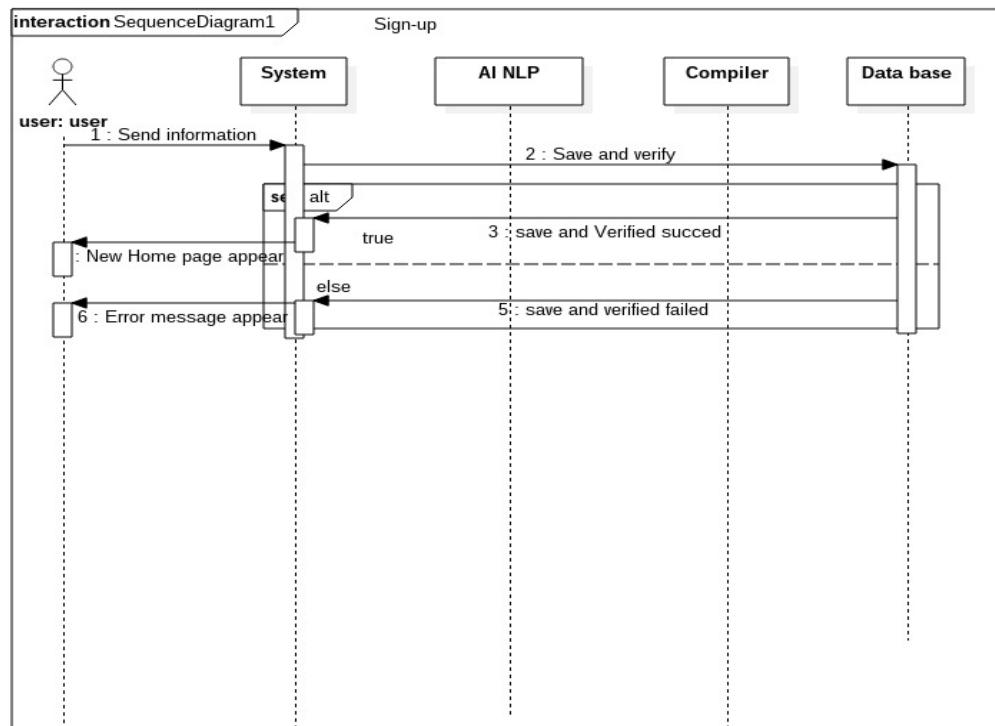
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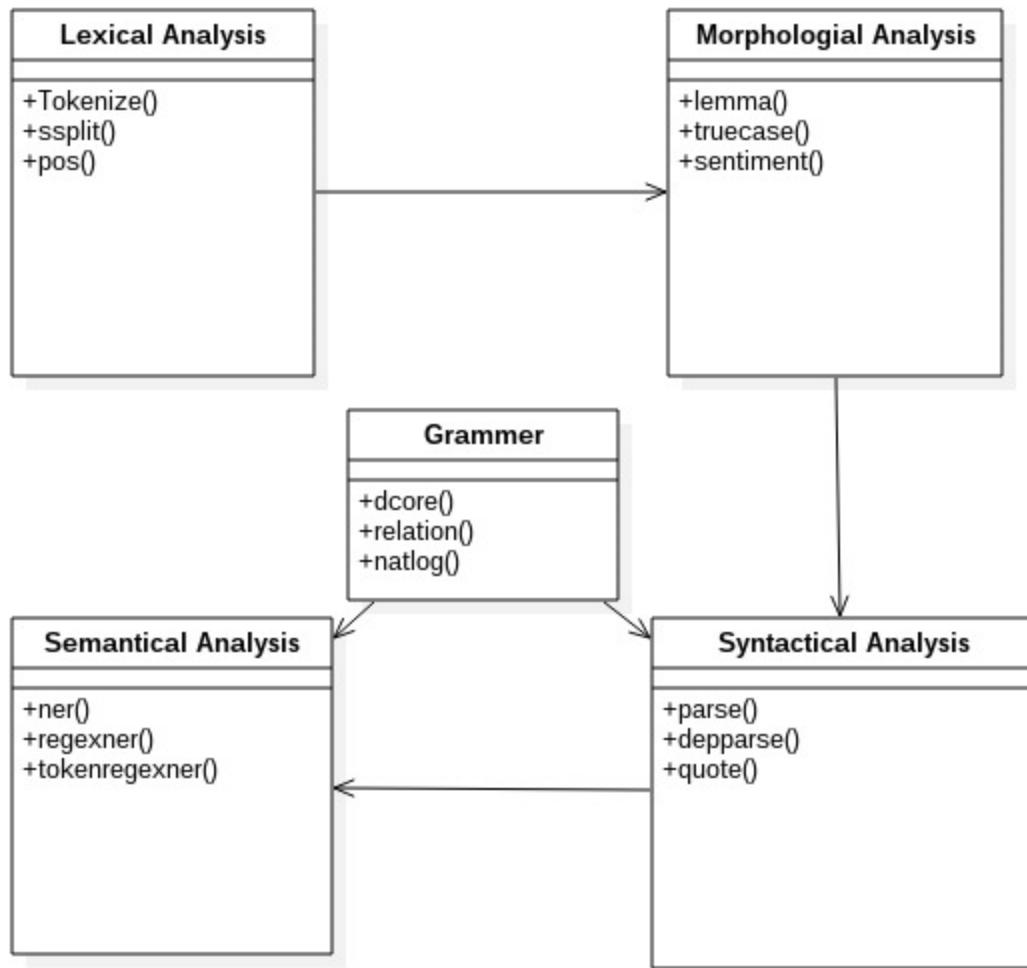
Class diagram

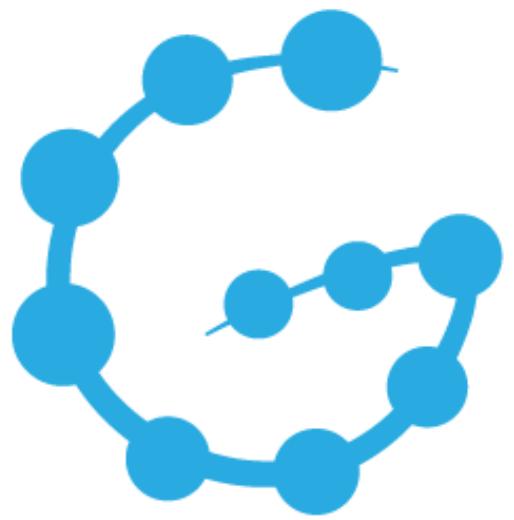












Genweb

DESIGN DOCUMENT

14/11/2016

ABSTRACT

This document is designed to define the general idea of the senior year graduation project & project design .

Presented to:

Dr. Mohamed Ali Saleh.



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1. Our Team

1.1 Information

Consists of the following four members:

Name: Ahmed Gamal Mohamed Elsheshtawi.

E-mail: Sheshtaawy@gmail.com

Phone Number: 01124851646

Additional Role: Documentation.

Name: Eslam Darwish Hassan Darwish.

E-mail: islam.darwish.hassan@gmail.com

Phone Number: 01271208907

Additional Role: Integration.

Name: Mohamed Mahrous Mohamed Kamel.

E-mail: mmrwwe@gmail.com

Phone Number: 01069141204

Additional Role: Coordination.

Name: Mohamed Mamdouh Ahmed Elazab.

E-mail: mohamedmamdouh133@gmail.com

Phone Number: 01113202019

Additional Role: Testing.



2. Background Survey

2.1 Problem

The essential problem here is that you can hardly find a different and unique website that match the casual user/customer needs what's make it hard for the most of us nowadays to distinguish and having a connection with these websites anymore.

2.2 Solution

The answer was an intelligent system that can understand the user/customer needs and generate a website the matches these need what's made those generated websites different and unique.

So we designed and developed and system that interact with the user/customer through a website that allow the user/customer to write his requirements and needs in a paragraph so that the AI system can analysis and extract the required information to generate the required website, after the generation the user/customer will be shown the proposed website and he has the option to edit or customize it according to his needs.

2.3 Purpose

GenWeb is designed and developed to minimizes the difficulties for any inexperienced customer who wishes to create his own website to fit his own need, on the other hand GenWeb is a perfect tool to any developer who seeks singularity.

2.4 Target Customer

Our customers are basically two kinds of website actor which are:

I. Developer with technical background.

Making the process of developing websites much easier, and provide an alternative solution for templates.

II. Owner without technical background.



3. Project Idea

3.1 Objective

GenWeb is a new self-contained product that is basically considered as a website that has the ability to make decisions and interact with the user without a third party, that's done by using an AI system that is able to understand what the user need and make decision to provide what the user asked for.

GenWeb is an alternative solution for templates, the basic idea is to allow any user regardless of his background to make his own unique website without repeatedly used templates.

3.2 Outcome

GenWeb is able to create & generate tens of unique and independent website for multiple users in an efficient way, in addition to having the luxury of editing and customizing the generated website according to the user needs.

4. Hardware requirements

4.1 Minimum Requirements:

- Client Side:

Processor: Intel Pentium III or AMD - 800 MHz

RAM: 128 MB.

Disk Space: 100 MB.

- Server Side:

Processor: Intel Pentium III or AMD - 800 MHz

RAM :1 GB.

Disk Space: 3.5 GB.

4.2 Recommended Requirements:

- Client Side:

Processor: All Intel or AMD - 1 GHZ.

RAM: 256 MB.

Disk Space: 100 MB.



- Server Side:

Processor: All Intel or AMD - 2 GHZ.

RAM :2 GB.

Disk Space: 3.5 GB

5. Software requirements

- Client on Internet:

- Web Browser, Operating System (any).

- Web Server:

- WASCE (WebSphere Application Server) , Operating System (any) .

- Database Server:

- DB2, Operating System (any).

- Development End:

- RAD (J2EE, Java, Java Bean, Servlets, HTML, XML, AJAX, PHP), DB2, OS (Windows).



6. Time Line

Month	Sep / Oct	November	December
Development	- Ideation - Background survey - Proposal	- SRS v1.0 - GenWeb UI v1.0 - NLP and Implementer Study.	- Design document v1.0 - NLP and Implementer Study.

Month	January	February	March
Development	- NLP and Implementer studying.	-Proto-type. -NLP core v1. -ML v1. -Compiler v1. - Unit testing.	- GenWeb UI v2.0 - Release v1 (Integration). - Web services establishment. - Integration Testing - Data filling v1

Month	April	May	June
Development	- Release v2 (Integration)/ Integration Testing - Data filling v2 - Validation and feedback v1.0	Customization tool v1 and System testing. - Security (optional).	- Full Final Documentation. - Refactoring.



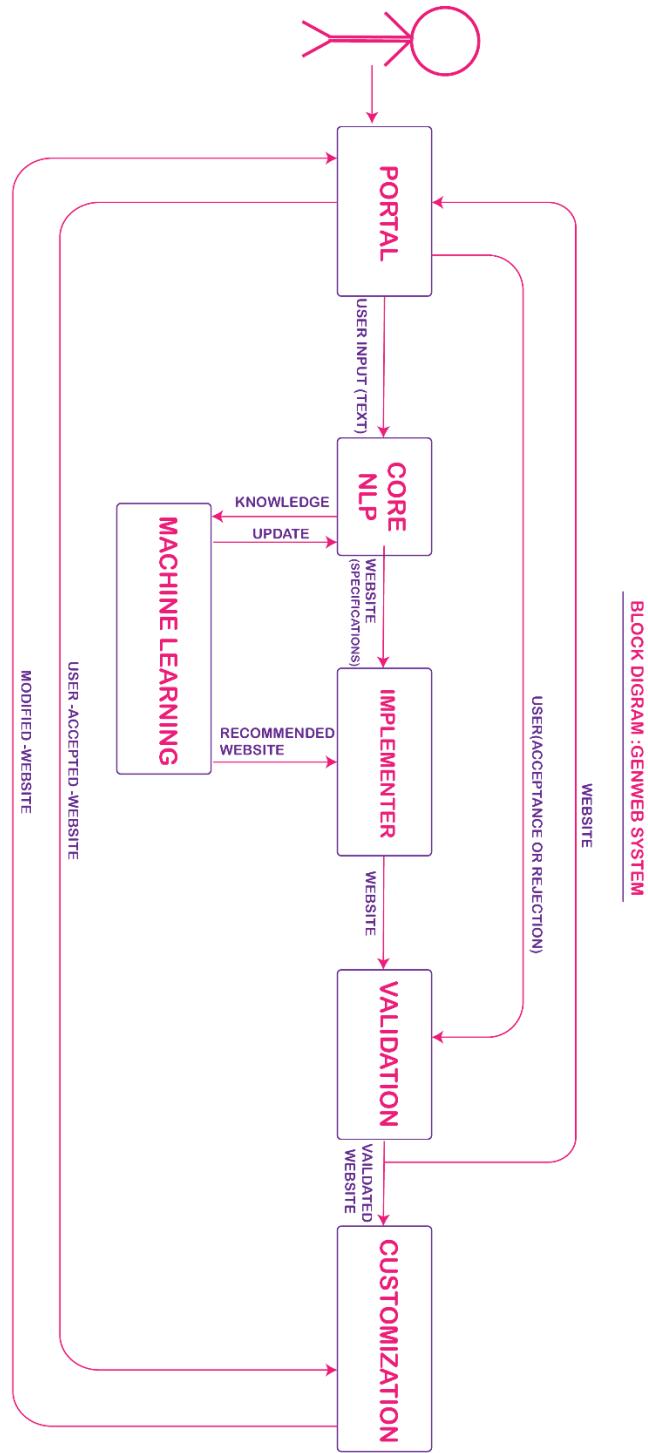
7. Supporting Products

- I. Stanford's Core NLP Suite.
- II. Code 95. (Web hosting)

8. Challenges that we face

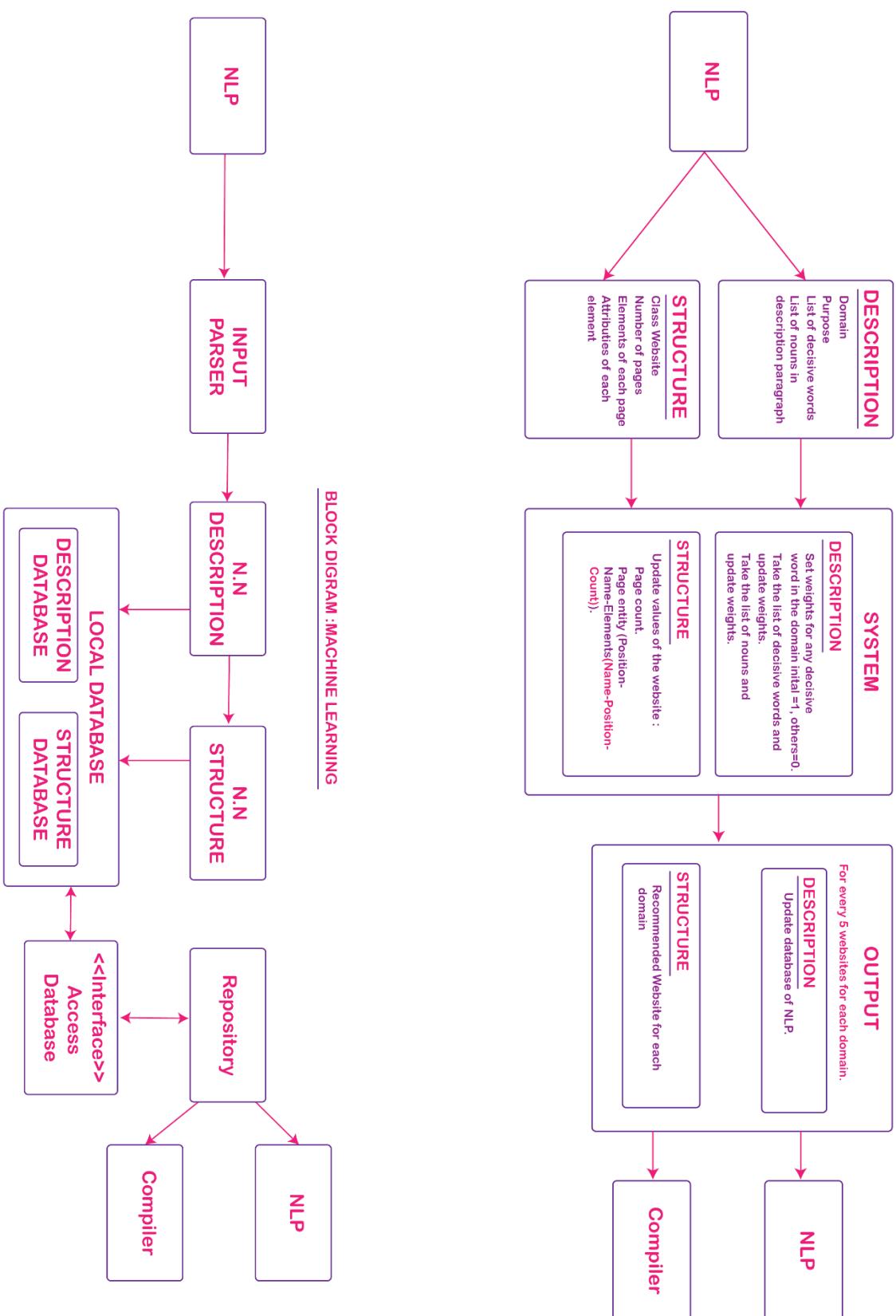
- This project requires a long learning phase before the implementation.
- Reaching a concrete understanding of the project through long hours of barnstorming.
- NLP ambiguity problems.
English disciplines problem.
- Integration between the NLP engine and the GenWeb compiler.
- Compiler language design specs; deciding the best structure to the web development domain.
- Compiler's optimization.
- Making use of open source web development frameworks to generate high quality websites (ex: Angular JS, Laraval).
- Adapting the NLP engine to work with the web development domain and understand it.

9. Design

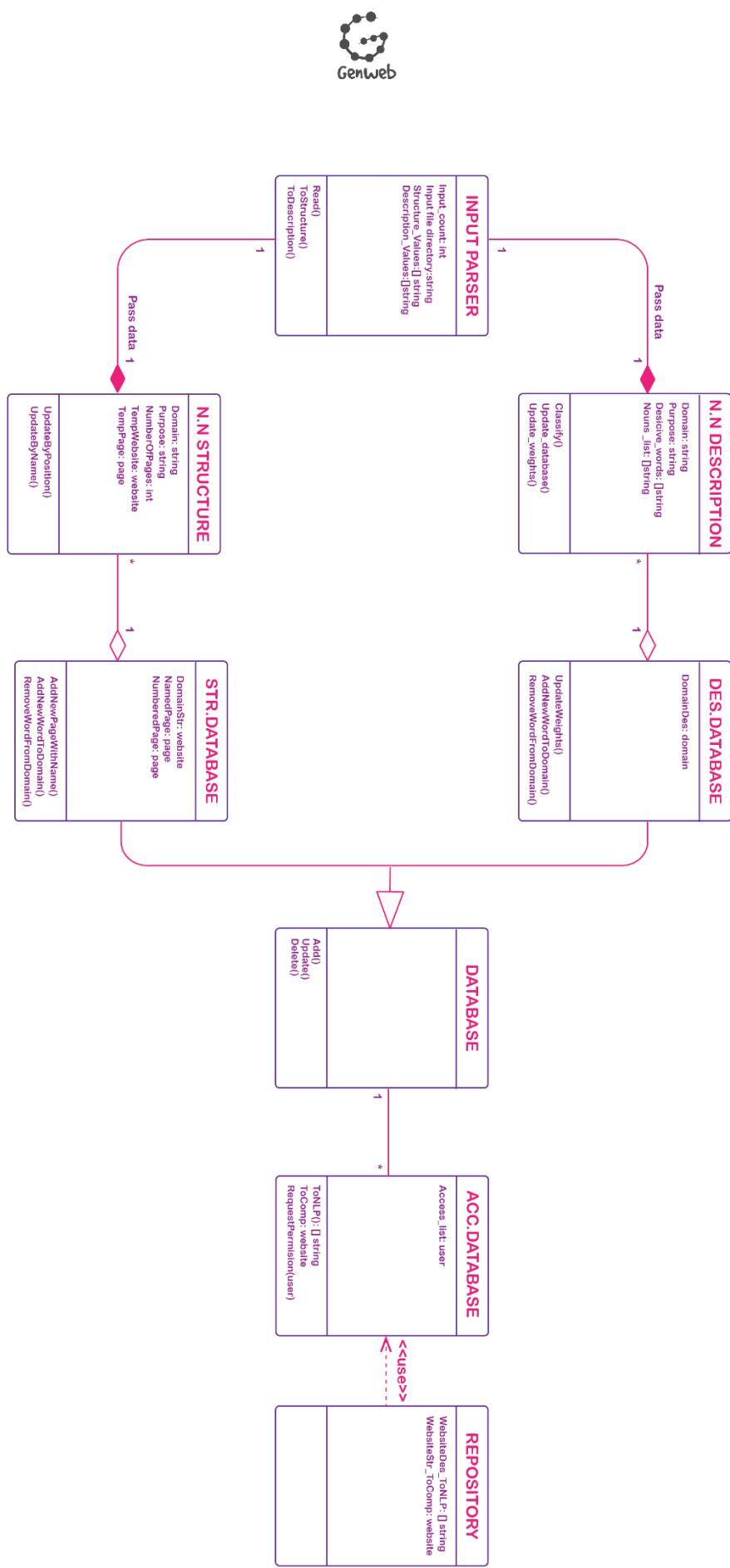




SYSTEM DESCRIPTION: MACHINE LEARNING

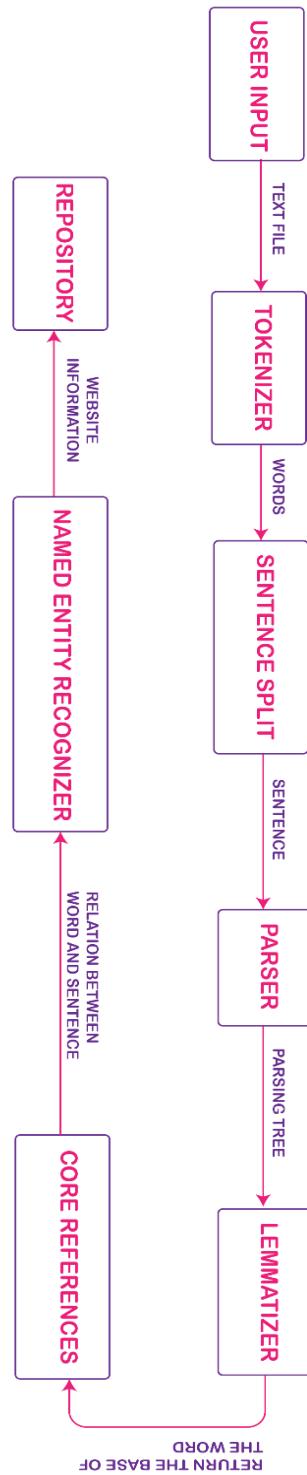


CLASS DIGARM: MACHINE LEARNING



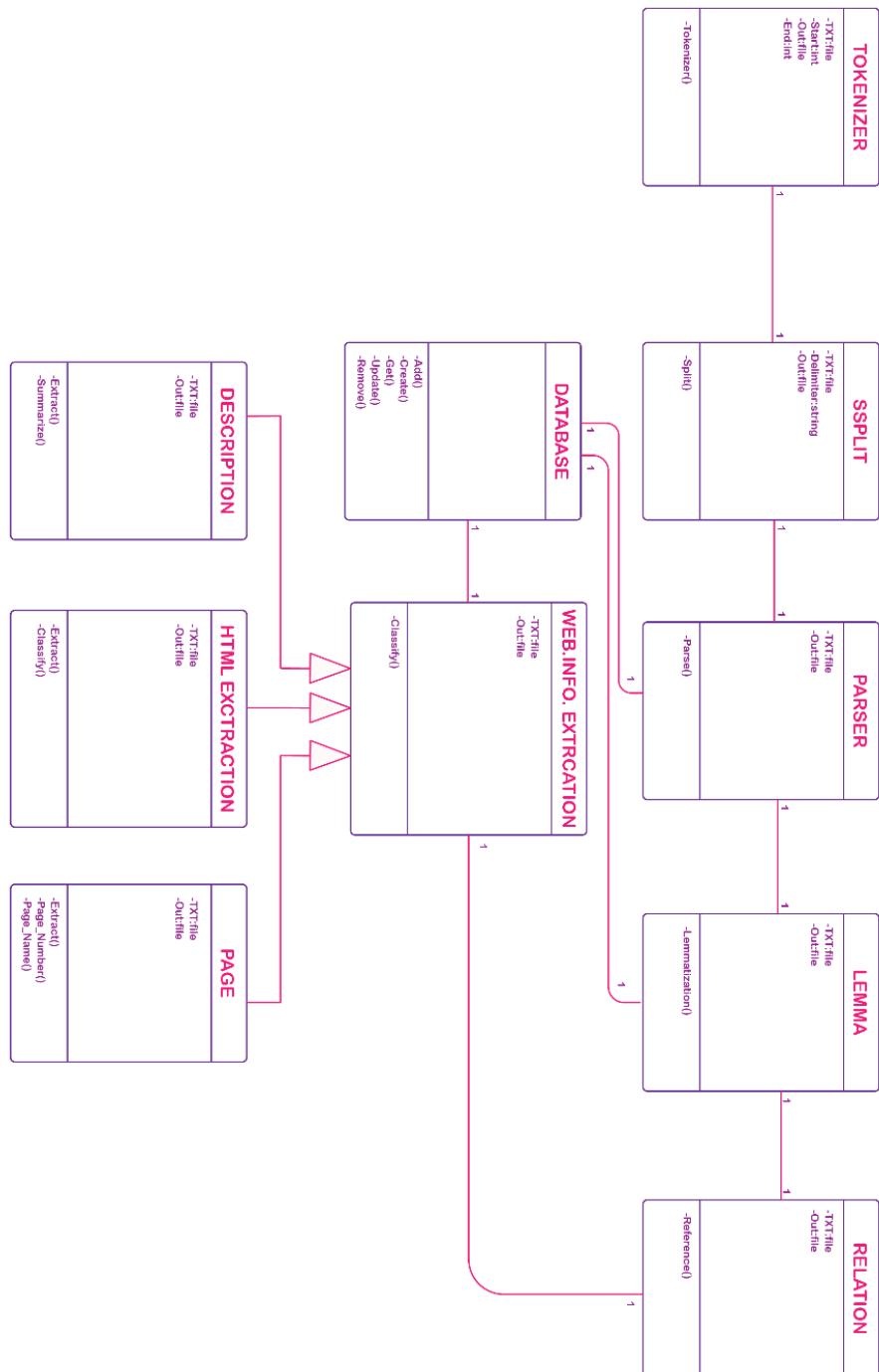


BLOCK DIAGRAM:NLP

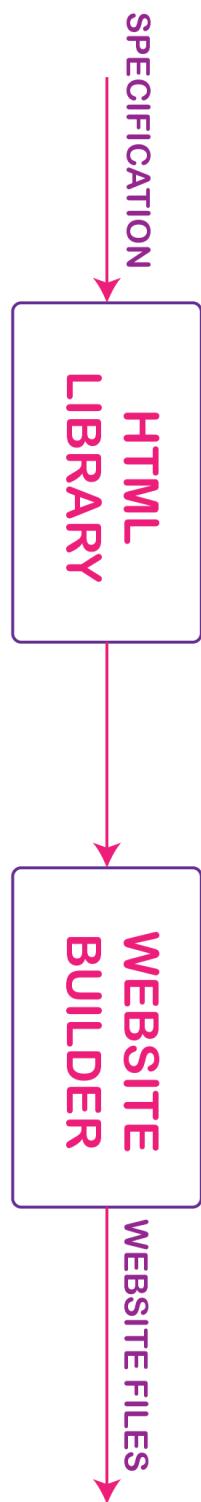




CLASS DIAGRAM:NLP



BLOCK DIAGRAM :IMPLEMENTER



CLASS DIGRAM :IMPLEMENTER

