BROWSER BUDDY PROJECT PLAN

SP-17 Browser Plug In

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Kennesaw State University | 4850-02/01 Senior Project

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1. Overview

1.1 Background

In today's world of information overload, people need tools to distill online content quickly into concise, digestible summaries. Our team aims to develop an intuitive browser extension that helps users grasp the key points of a large webpage in seconds.

1.2 Objectives

The following are the team's objectives:

- 1. Develop a Firefox extension using the WebExtensions API.
- 2. Integrate machine learning capabilities by interfacing with OpenAl's GPT-4 model via their private API.
- 3. At the click of a context-menu button, summarize webpages into smaller & more readable paragraphs and bulleted lists.
- 4. Summaries must be clean, visually appealing, and built for readability and accessibility first.
- Provide users with customization options such as summary length or text-tospeech.

1.3 Scope

The scope of the project will be as follows:

- 1. A desktop Firefox extension for MacOS and Windows.
- 2. Integration with OpenAI's GPT-4 model for robust summarization capability.
- 3. An intuitive browser pop-up window for summary viewing and controls.
- 4. Summarization of text-heavy webpage sections

2. Deliverables

2.1 Requirements

- Functional requirements
- Non-functional requirements
- User stories
- Data requirements

2.2 Design Plan

- UI/UX specification
- Interaction flow diagram
- Mockup
- Style guide
- Class specification

2.3 Prototype

- Basic extension with core MVP features
- Demonstration with feedback

2.4 Documentation

- Source code w/ comments
- Testing plans and results
- User manuals
- Final project report

3. Milestones

Milestone	Notes	Due date						
Requirements &	Requirements for the project. Design of the	Feb. 13 th						
Design Document	project.							
Website	te Fetch from openAI's API with a webpage's							
summarization	contents and display a response.							
achieved								
Prototype &	Extension which has a button that sends	Mar. 4 th						
Presentation	webpage data to openAl and relays a							
	response with functioning UI.							
Minimum Viable	All functional requirements accomplished.	Mar. 31st						
Product								
Final Report Draft	Draft of the final report. Will be nearing the	Apr. 6 th						
	final build of the project.							
Final Project Package	Compilation of all previous work, including	Apr. 21st						
	the final product.							

4. Scheduled Meetings

Our team is scheduled to have an in-person meeting every Thursday from 2:00pm to 4:30pm. Every other day is intended to be a workday—except for Saturday, which will be a swing-day. This setup for meetings should give us ample time to discuss our progress throughout the previous and upcoming week. Of course, virtual meetings in Teams will be scheduled as required.

5. Gantt

We have planned 194 work hours. This, of course, may be inaccurate, but is appropriate considering the length of time necessary for every listed task.

Project Name:	SP-17 Browser Plugin																									
Report Date:	1/30/2024																									
						Requirements & Design			website Summarization				Prototyp	e & Presentation		Mini	mum I	um Viable Pr		Final	Report	Draft		Final Report Pac		
Phase	Tasks	Complete%	Current Status Memo	Assigned To	02/01	02/06	02/08	02/13	02/15	02/20	02/22	02/24	02/29	03/02	03/04	03/07	03/14	03/21	03/31	04/02	04/04	04/06	04/09	04/16	04/18	04/21
	Data requirements	0%		Jacob, Elliott			3	4																		
Project design	UI/UX specification	0%		Jacob				2	3	2																
	Interaction flow diagram	0%		Jacob					2	2																
	Class specification	0%		Jacob, Elliott						4	4															
	Style guide	0%		Elliott, Nathan						4	3	1														
	Full mockup	0%		Team						5	6	5														
Development	Design prototype	0%		Jacob, Nathan							6	9	9	7												
	Prepare prototype presentation	0%		Jacob, Elliott								5	8	6	4											
	Rework requirements	0%		Nathan											3	2	3									
	Document updated design	0%		Nathan, Elliott												4	4									
	Prepare MVP	0%		Team											5	8	8	10	7							
Final product	Test and debug MVP	0%		Nathan, Jacob														6	6	2						
	Touch up MVP	0%		Jacob, Elliott															2	1						
	Prepare final product	0%		Team															3	6	8	4	3			
Final report	Compile final report	0%		Team																			10	8	3	
	Prepare final product presentation	0%		Jacob																				3	3	
	Assmble repository and																								2	
	deliverables	0%		Jacob																					2	4
			Total work hours	194	2	8	10	8	5	17	19	20	17	13	12	14	15	16	18	9	8	4	13	11	8	4
	* formally define how you will develop this project including source code management																									
Legend																										
Planne	ed 194																									
Delaye	ed 0																									

6. Risk Assessment

Outlaid here are some risks associated with the projects corresponding mitigation efforts.

1. Slow API performance

- a. Cache summaries to limit API calls & cost.
- b. Optimize preprocessing to lower token counts.
- c. Test on a few machines to identify issues with performance.

2. OpenAl usage limits

- a. Explore using alternative models during downtime.
- b. Provide a warning to users about throttling.

3. Privacy concerns

- a. Limit data collection to bare minimum for basic functionality.
- b. Only store user information such as cached summaries locally.

7. Version Control

Git through GitHub hosted by an organizational account, all members have equal authorization. We will maintain proper version control techniques—every new feature to the project will be placed in its own branch. Proper documentation will be created as well.