Git Repositories

Statement of Work

Date 10/12/2018

# Introduction

This Statement of Work (SOW) document outlines the services and deliverables to be provided by the University of Wisconsin-Parkside Software Engineering class Git Repositories team (herein referred to as GR team) for Zaid Altahat (herein referred to as ZA).

# Project Statement

With every git project comes several repositories, each acting as a snapshot of the project every time a new commit is performed. The Git Repositories project aims to extract meaningful data by analyzing the repository history in a project and visualize it in an understandable way for the end user.

# Approach

GR team will work with ZA and its partners to gather the necessary materials and information to implement the GR Application.

GR team follows the industry standard Scrum methodology for software development, which is an implementation of the Agile methodology. Scrum is an incremental, iterative approach to software development, and involves the client at many times to review deliverables and prioritize features. Chosen features are prioritized into time-boxed “sprints” where work is focused on those features. As such, it is critically important that the client review deliverables and respond with feedback in an appropriate time frame.

ZA shall agree to the following on an “as needed” basis:

1. To meet with GR team to further define requirements.
2. To meet with GR team to make adjustment to the project scope.
3. To prioritize the features and scope of the project.
4. To provide the GR team with necessary materials including written copy and images.
5. To respond in an appropriate time frame to queries by email.
6. To participate in demos conducted by GR team on the conclusion of each phase or sprint.

# Work Scope

**The goal** of this project is to create a user-friendly analysis tool that allows developers to research about their own programming habits. The GR Application should provide:

* A program that extracts the data from the git project.
* A visualization of the data.
* A GUI that allows the user to select what data they wish to see.

**Functions**:

1. Extracts a commit log from a provided git project.
2. Converts commit log into a JSON file.
3. Processes JSON file for relevant data. This includes (but is not limited to):
   1. Number of times a file has been changed.
   2. Number of times a file has been accessed.
   3. Date when file was created.
4. Displays stored data for user.
5. Robust GUI that allows for easy data selection and project selection.
6. **Extra:** Snapshots of a file throughout its lifetime.

**Environment:**

Language and Tools: JavaScript, Python, D3, Node.js, Flask

IDEs: WebStorm, Atom, Visual Studio, IDLE

Operating Systems: Windows 10, Mac OS X

Server: Microsoft Azure Student Server

**Deliverables**:

1. Statement of Work
2. The GR Application

## Assumptions and Limitations

For the purposes of this SOW, the following assumptions and limitations are taken:

1. GR team maintains its own dev and test environment. GR team may offer guidance on purchasing servers or provide support for the client’s production environment, however the client must provide the production environment through either their own in-house servers or through a cloud provider such as Amazon Web Services (AWS).
2. Due to the complexity of modern web development and the multitude of devices to test against, GR team shall test web-based components and support only browser versions currently supported by their vendors.

## Completion Criteria

This project is successfully completed when the services and deliverables defined in this document have been completed. If there are non-blocking issues raised during the project which have not been resolved by the end of the project, then they will be handled via the Customer Service Request process and will not block final acceptance of this project.

## Intellectual Property

GR team will provide all source code to the client upon completion of the project. Copyright will be held by the client for all code developed and content generated as part of the work in this agreement upon completion of this project. GR team reserves the right to reuse specific coding techniques and structural designs in any GR team future projects.

# Project Schedule and Cost

Listed below is the cost estimate breakdown for the project. The figures below represent an estimated quote based on the scope of the project. If adjustments to the scope of this project are required by the client or are identified during development, effort estimates may be updated between sprints. ZA will be notified of any major adjustments required.

Work can be stopped or delayed if ZA chooses to do so. However, if delays last longer than one month, a new statement of work must be agreed upon to continue work.

This SOW does not include quotes for server hosting, domain registration, or any third-party subscription services.

## Time Estimates

A standard sprint is two weeks. The project’s components will be developed concurrently.

|  |  |
| --- | --- |
| **Task** | **Est. Time** |
| Extract Data from Repositories | 3 sprints |
| Visualize Data | 3 sprints |
| User Controls | 2 sprints |
| GUI for User Controls | 2 sprints |
| Documentation/Organization | 1 sprint |
| Extra features and calculations | tentative |

## Project Schedule

Project schedule is dependent on contract acceptance date.

|  |  |  |
| --- | --- | --- |
| **Sprint** | **Start** | **Deliverable(s) at end of sprint** |
| 3 | 10/11 | Commit Logs, JSON file, and some extracted data |
| 4 | 10/25 | D3 integration and completed extraction |
| 5 | 11/8 | GUI integration fully fleshed out D3 view |
| 6 | 11/22 | Tentative user controls with working GUI |
| 7+ | 12/6 | Complete user controls and final GUI, + extra features (tentative) |

# Acceptance

By signing this document, both GR team and ZA agree to the terms described above.

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| --- | --- |
| Version | 1.0 |

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| --- | --- | --- |
|  |  |  |
| GR team, University of Wisconsin-Parkside |  | Date |

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|  |  |  |
| Zaid Altahat |  | Date |