# CSC510 Software Engineering

## Project 2: Extend Code


Group 3

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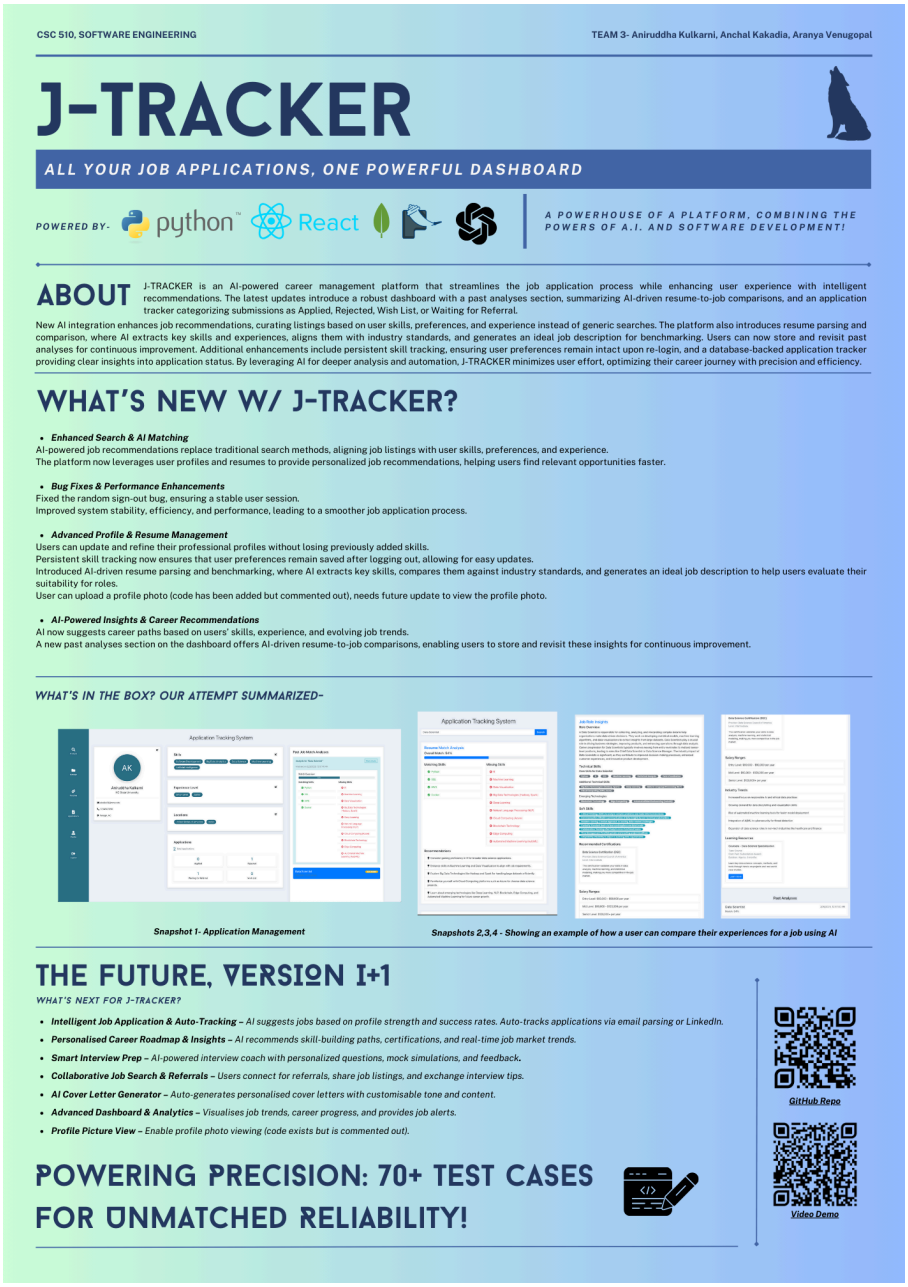

**Repository URL:** https://github.com/ncsu-csc-510/Project2

1. Fill Software Sustainability Evaluation self-assessment and Repository Rubric tables:

Software Sustainability Evaluation self-assessment table:

| Category | Question | Yes | No | Evidence |
|---|---|---|---|---|
| Q1 - Software Overview | | | | |
| Question 1.1 | Does your website and documentation provide a clear, high-level overview of your software? | ✅ | | Yes, README.md |
| Question 1.2 | Does your website and documentation clearly describe the type of user who should use your software? | ✅ | | Yes, README.md |
| Question 1.3 | Do you publish case studies to show how your software has been used by yourself and others? | ✅ | | Yes, we've uploaded pictures of the entire workflow in our README |
| Q2 - Identity | | | | |
| Question 2.1 | Is the name of your project/software unique? | | ❌ | Many Projects are named this in our course |

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| Question 2.2 | Is your project/software name free from trademark violations? | ✅ | | Yes, it is hosted under the MIT License |
| Q3 - Availability | | | | |
| Question 3.1 | Is your software available as a package that can be deployed without building it? | | ❌ | No, it is a docker image that needs to be built |
| Question 3.2 | Is your software available for free? | ✅ | | Yes, it is a public github repository |
| Question 3.3 | Is your source code publicly available to download, either as a downloadable bundle or via access to a source code repository? | ✅ | | Yes, it is a public github repository |
| Question 3.4 | Is your software hosted in an established, third-party repository like GitHub, BitBucket, LaunchPad, or SourceForge? | ✅ | | Yes, on GitHub |
| Q4 - Documentation | | | | |
| Question 4.1 | Is your documentation clearly available on your website or within your software? | ✅ | | Documentation is available on our organization's |

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| | | | | GitHub Page |
| Question 4.2 | Does your documentation include a "quick start" guide, that provides a short overview of how to use your software with some basic examples of use? | ✅ | | Yes, in the readme file |
| Question 4.3 | If you provide more extensive documentation, does this provide clear, step-by-step instructions on how to deploy and use your software? | ✅ | | Yes, all deployment information can be found in the readme |
| Question 4.4 | Do you provide a comprehensive guide to all your software's commands, functions and options? | ✅ | | Yes, Command and functions can be found on the repository |
| Question 4.5 | Do you provide troubleshooting information that describes the symptoms and step-by-step solutions for problems and error messages? | ✅ | | We have exception handling statements in the code, so any mishaps will throw an error message |

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| Question 4.6 | If your software can be used as a library, package or service by other software, do you provide comprehensive API documentation? | | ❌ | No we do not have comprehensive API documentation |
| Question 4.7 | Do you store your documentation under revision control with your source code? | | ❌ | No, we do not have documentation under revision control our source code |
| Question 4.8 | Do you publish your release history e.g. release date, version numbers, key features of each release etc. on your web site or in your documentation? | ✅ | | |
| Q5 - Support | | | | |
| Question 5.1 | Does your software describe how a user can get help with using your software? | ✅ | | Yes, it does. It has various functions that a user can use for an advantage in their job search journey. |

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| Question 5.2 | Does your website and documentation describe what support, if any, you provide to users and developers? | ✅ | | Yes, our code has exception handling coded into it, which will notify users of what is going wrong if needed |
| Question 5.3 | Does your project have an e-mail address or forum that is solely for supporting users? | | ❌ | Not yet, but we're planning on implementing that |
| Question 5.4 | Are emails to your support e-mail address received by more than one person? | | ❌ | - |
| Question 5.5 | Does your project have a ticketing system to manage bug reports and feature requests? | ✅ | | The software uses a system similar to a ticketing system while interacting with the database while adding skills and experience to it. |

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| Question 5.6 | Is your project's ticketing system publicly visible to your users, so they can view bug reports and feature requests? | ✅ | | Not yet. Since its being used in the database it is currently private |
| Q6 - Maintainability | | | | |
| Question 6.1 | Is your software's architecture and design modular? | ✅ | | Yes, the frontend and backend are further divided into modules for easier debuggin g |
| Question 6.2 | Does your software use an accepted coding standard or convention? | ✅ | | Yes, we've tried our level best to keep the size of the functions as small as possible |
| Q7 - Open Standards | | | | |

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| Question 7.1 | Does your software allow data to be imported and exported using open data formats? | ✅ | | Yes, the data can be found on MongoDB atlas cloud platform |
| Question 7.2 | Does your software allow communications using open communications protocols? | | ❌ | No, our software does not allow communications using open communication protocols |
| Q8 - Portability | | | | |
| Question 8.1 | Is your software cross-platform compatible? | ✅ | | It's an application run through local network |
| Q9 - Accessibility | | | | |
| Question 9.1 | Does your software adhere to appropriate accessibility conventions or standards? | ✅ | | Frondend shows use of AJAX and Bootstrap which helps with |

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| | | | | accessibility in applications |
| Question 9.2 | Does your documentation adhere to appropriate accessibility conventions or standards? | ✅ | | It's easy to read |
| Q10 - Source Code Management | | | | |
| Question 10.1 | Is your source code stored in a repository under revision control? | | ❌ | No we do not have revision control but it is stored under a repository |
| Question 10.2 | Is each source code release a snapshot of the repository? | | ❌ | No, each source code release is not a snapshot of the repository |
| Question 10.3 | Are releases tagged in the repository? | | ❌ | No released are not tagged in the repository |
| Question 10.4 | Is there a branch of the repository that is always stable? (i.e. tests | ✅ | | Yes, The main branch is |

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| | always pass, code always builds successfully) | | | a stable repository where all the tests pass and the code builds successfully |
| Question 10.5 | Do you back-up your repository? | ✅ | | There are many forks for this project. |
| Q11 - Building & Installing | | | | |
| Question 11.1 | Do you provide publicly-available instructions for building your software from the source code? | ✅ | | Yes, all instructions to run the software are mentioned in the README |
| Question 11.2 | Can you build, or package, your software using an automated tool? | | ❌ | Yes, IaC tools can be used to automate this process. |
| Question 11.3 | Do you provide publicly-available instructions for deploying your software? | | ❌ | No, we don't. Our current implement |

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| | | | | ation is a local one |
| Question 11.4 | Does your documentation list all third-party dependencies? | ✅ | | Yes, it does. |
| Question 11.5 | Does your documentation list the version number for all third-party dependencies? | ✅ | | Yes, our README file lists versions for all dependencies |
| Question 11.6 | Does your software list the web address, and licences for all third-party dependencies and say whether the dependencies are mandatory or optional? | ✅ | | Yes, all the links are mentioned as hyperlinks |
| Question 11.7 | Can you download dependencies using a dependency management tool or package manager? | ✅ | | Yes, all the required dependencies can be installed using a Python package installer. |
| Question 11.8 | Do you have tests that can be run after your software has been built or deployed to show whether the build or deployment has been successful? | ✅ | | Yes, the actions tab in our repository mentions whether the test cases |

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| | | | | have passed or not |
| Q12 - Testing | | | | |
| Question 12.1 | Do you have an automated test suite for your software? | ✅ | | Yes, we have automated test suite for your software |
| Question 12.2 | Do you have a framework to periodically (e.g. nightly) run your tests on the latest version of the source code? | | ❌ | No we have not set up a framework to periodically run the tests on the latest version of the code |
| Question 12.3 | Do you use continuous integration, automatically running tests whenever changes are made to your source code? | ✅ | | Yes, we have automated running test cases for any changes made. |
| Question 12.4 | Are your test results publicly visible? | ✅ | | Yes, we had a badge on the readme showcasi |

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| | | | | ng passing test cases. |
| Question 12.5 | Are all manually-run tests documented? | | ❌ | No we do not have manually run test |
| Q13 - Community Engagement | | | | |
| Question 13.1 | Does your project have resources (e.g. blog, Twitter, RSS feed, Facebook page, wiki, mailing list) that are regularly updated with information about your software? | | ❌ | No regular updates |
| Question 13.2 | Does your website state how many projects and users are associated with your project? | | ❌ | No explicit informatio n on the users associate d with the project |
| Question 13.3 | Do you provide success stories on your website? | | ❌ | No success stories are provided on the website. |
| Question 13.4 | Do you list your important partners and collaborators on your website? | | ❌ | No, there is no list of important |

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| | | | | contributors. |
| Question 13.5 | Do you list your project's publications on your website or link to a resource where these are available? | | ❌ | No publications of the project are available. |
| Question 13.6 | Do you list third-party publications that refer to your software on your website or link to a resource where these are available? | ✅ | | Yes, resources to mongoDB are linked |
| Question 13.7 | Can users subscribe to notifications to changes to your source code repository? | ✅ | | It is possible to watch this repo to get notifications |
| Question 13.8 | If your software is developed as an open source project (and, not just a project developing open source software), do you have a governance model? | | ❌ | No, there is no governance model added |
| Q14 - Contributions | | | | |
| Question 14.1 | Do you accept contributions (e.g. bug fixes, enhancements, documentation updates, tutorials) from people who are not part of your project? | ✅ | | Yes, the project we're working on will eventually be worked on by |

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| | | | | other people |
| Question 14.2 | Do you have a contributions policy? | | ❌ | No, we don’t. Not yet at least. |
| Question 14.3 | Is your contributions' policy publicly available? | ✅ | | Yes, all the contributors and their contributions are publicly available |
| Question 14.4 | Do contributors keep the copyright/IP of their contributions? | | ❌ | No, this is an open-source project being worked on by students. |
| Q15 - Licensing | | | | |
| Question 15.1 | Does your website and documentation clearly state the copyright owners of your software and documentation? | | ❌ | No it is an open source project so anyone can make edits to it |
| Question 15.2 | Does each of your source code files include a copyright statement? | | ❌ | No there is copyrights |

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| | | | | in the project |
| Question 15.3 | Does your website and documentation clearly state the licence of your software? | ✅ | | Yes the MIT license is stated |
| Question 15.4 | Is your software released under an open source licence? | ✅ | | Yes it is released under the MIT license |
| Question 15.5 | Is your software released under an OSI-approved open-source licence? | ✅ | | MIT license used |
| Question 15.6 | Does each of your source code files include a licence header? | | ❌ | No there is no license header |
| Question 15.7 | Do you have a recommended citation for your software? | | ❌ | No citation for the software |
| Q16 - Future Plans | | | | |
| Question 16.1 | Does your website or documentation include a project roadmap (a list of project and development milestones for the next 3, 6 and 12 months)? | | ❌ | No, it doesn't. The project poster however, contains suggestions that can be |

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| | | | | included in the next iteration of the project. |
| Question 16.2 | Does your website or documentation describe how your project is funded, and the period over which funding is guaranteed? | | ❌ | No, it doesn't. |
| Question 16.3 | Do you make timely announcements of the deprecation of components, APIs, etc.? | | ❌ | No, the project is passed onto the next team |

## Repository Rubric

| Notes | Evidence | Score |
|---|---|---|
| Workload is spread over the whole team (one team member is often Xtimes more productive than the others... but nevertheless, here is track record that everyone is contributing a lot) | Evidence in GH | 3 |
| Number of commits | in GH | 3 |
| Number of commits: by different people | in GH | 3 |
| Issues reports: there are many | In GH | 2 |
| Issues are being closed | evidence in GH | 3 |
| Docs: doco generated, format not ugly | in GH | 3 |

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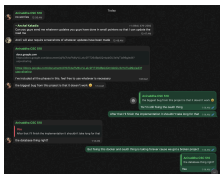
|---|---|---|
| Docs: what: point descriptions of each class/function (in isolation) | | 3 |
| Docs: how: for common use cases X,Y,Z mini-tutorials showing worked examples on how to do X,Y,Z | entries with images in the readme | 3 |
| Docs: why: docs tell a story, motivate the whole thing, deliver a punchline that makes you want to rush out and use the thing | | 2 |
| Docs: short video, animated, hosted on your repo. That convinces people why they want to work on your code. | | 3 |
| Use of version control tools | In GH | 3 |
| Test cases exist | There are 70 test cases in the github page | 3 |
| Test cases are routinely executed | Automated test cases have been added which run with every push | 3 |
| Issues are discussed before they are closed | even if you discuss in slack, need a summary statement here | 3 |
| Chat channel: exists |  | 3 |

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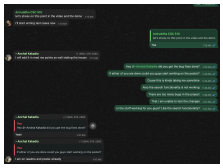
| |  | |
| Test cases: a large proportion of the issues related to handling failing cases. | There are a couple of failing test cases which can be worked on by future teams | 2 |
| Evidence that the whole team is using the same tools: everyone can get to all tools and files | Github is being used by the entire team along with the automated test cases. So the entire team is using the same tools and files for the code | 3 |
| Evidence that the whole team is using the same tools (e.g. config files in the repo, updated by lots of different people) | Can be seen in the GH commits | 3 |
| Evidence that the whole team is using the same tools (e.g. tutor can ask anyone to share screen, they demonstrate the system running on their computer) | Yes entire team is using the same tools, can be seen in github commits | 3 |
| Evidence that the members of the team are working across multiple places in the code base | Yes, different branches are present in github to showcase | 3 |

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| | teammates working on different parts of the code | |
| Short release cycles | After every small implementation code is pushed for teammates to review | 3 |
| The file .gitignore lists what files should not be saved to the repo. See [examples]i(https://github.com/github/gitignore) | in GH | 3 |
| The file INSTALL.md lists how to install the code | in GH | 3 |
| The file LICENSE.md lists rules of usage for this repo | in GH | 3 |
| The file CODE-OF-CONDUCT.md lists rules of behavior for this repo; e.g. see example | in GH | 3 |
| The file CONTRIBUTING.md lists coding standards and lots of tips on how to extend the system without screwing things up; e.g. see example | in GH | 3 |
| The file README.md contains all the following | | |
| Video | 2min video of new functionality, showing a significant delta from prior. | 3 |

| | | |
|---|---|---|
| DOI badge: exists. To get a Digital Object Identifier, register the project at Zenodo. DOI badges look like this:  | in GH | 3 |
| Badges showing your style checkers | config files in GH showing your config, badges in README | 1 |
| Badges showing your code formatters. | config files in GH showing your this formatter's config, badges in README | 1 |
| Badges showing your syntax checkers. | config files in GH showing this checker's config, badges in README | 1 |
| Badges showing your code coverage tools | config files in GH, badges in README | 3 |
| Badges showing any other Other automated analysis tools | config files in GH, badges in README | 3 |
| Total Score | | 90 |