

Northern Arizona University



Guidelines for Team Standards

GeoKings - GeoStac
Sponsors - USGS

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CS476

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Introduction

This Team Standards document outlines the expectations and agreements of the team regarding how GeoKings will function. The standards cover a range of topics, from assigning roles to team members to establishing protocols for conduct and communication, and agreeing on the tools to be used. These standards aim to create a common understanding of expectations and facilitate efficient and effective collaboration. In this document, you will find sections on team members and roles, team meeting expectations, conduct and tools, and document standards. The purpose of this document is to ensure that every team member is on the same page and is aware of the guidelines for working together effectively.

Team Members and Roles

- **Jackson Brittain:** Jackson is a Junior, an Applied Computer Science major, and is the Release Manager. The role of Release Manager is to keep all project provisioning and branching organized and to maintain the integrity of the project Commit logs, ensuring they are accurate and readable. Jackson also has the role of Coder working primarily with the back end.
- **Zack Bryant:** Zack is a senior and computer science major, and has the role of Team Leader. As the Team Leader Zack ensures that tasks are being completed within the required time frames and are held to the project standards. The Team Leader will also organize meetings, and will be the initial point of contact for any disputes between team members. Additionally Zack has the role of Coder and can work both front and back end development.
- **John Cardeccia:** John is an Applied Computer Science major and will graduate in December of 2023. John's primary role will be as the team Recorder. As the Recorder, he will be responsible for creating meeting agendas, and keeping minutes that accurately reflect the discussions and decisions of the team, mentor, and sponsor meetings. Once meetings have been completed, these minutes will be uploaded to the team's discord for reference by any team members. John's second assigned role is that of Coder, primarily working with backend code.
- **Alex Poole:** Alex is pursuing a B.S. in Computer Science and is a senior at NAU. He has accepted the role of Customer Communicator. This means that Alex will be the primary point of contact for communication between the team and both the GeoSTAC project sponsors - and the team mentor - to arrange or cancel meetings, or to pass along any follow up questions. Alex will also take the role of Coder, he is most knowledgeable

about back-end development but does have some knowledge regarding front end development.

- **Andrew Usvat:** Andrew, a junior at NAU working towards a degree in Applied Computer Science, will take the primary role of Architect for the GeoSTAC project. As the Architect, Andrew will be responsible for verifying that the actual code implementations adhere to any agreed upon design decisions. Beyond the role of Architect, Andrew will also take on the role of Coder, working primarily with front-end development.

Team Meeting Expectations

The team has agreed to meet in person each Tuesday at 10am, at the Cline Library in a room that is reserved beforehand. Any impromptu meetings will be held over a Discord voice call for ease of access and in case of short notice.

An agenda will be drafted by a team member before each meeting to ensure that the goals of the meeting are transparent. The first order of business for team meetings is to have each member give a short report of what has been accomplished since the last meeting and what tasks are in progress.

Meeting minutes will be taken by a team member for each meeting, and will be posted in the appropriate Discord channel to keep all meeting logs in the same place. There will be a template accessible to every member of the team to use for the meeting minutes to ensure formatting continuity.

In regards to the decision making process, each decision made by the group will strive to be a unanimous vote. In the event an impasse occurs, further discussion is required and at minimum, four out of the total five team members must come to a consensus. Additionally in these matters, each member must make a decision, not choosing a side is not allowed. This is to facilitate a fair and balanced system where a conclusion is reached as a team, not an individual.

Meeting attendance is more or less subjective to the group as a whole. The team recognizes that uncontrollable events do occur. Therefore, a missed meeting with prior explanation will not be held against that individual. As a caveat to the previous statement, the team holds performance in high regard; if a member misses a meeting and has been deficient in terms of completing assigned tasks on time, there will be a group discussion as a result. Moreover, if the meeting missed was a crucial one, and the explanation for the absence is deemed not reasonable, a discussion will be held to mitigate further actions that degrade the team's performance. With that

being said, a hard limit of 3 missed meetings will warrant a designated meeting as a team to discuss the implications of the individual missing meetings as well as the consequences.

Each meeting will follow the agenda outlined prior to said meeting. The goal for the allotted time will be to finish the items on the agenda, to clear up any questions or concerns, and to improve upon effective communication for the following week. To achieve these goals, the team must focus on being efficient, but not rushed. If the meeting goes over the allotted time, an impromptu meeting will be held over Discord at the nearest possible meeting time to finish the items on the agenda. Any interpersonal disputes must be handled outside of the meeting time and not affect the workflow of the team. In the event that interpersonal issues bleed into team meetings, the issue will be discussed thoroughly with the entirety of the team to ensure that either the problem is resolved, or that it will no longer disrupt the productivity of the group. If evidence arises that a member of the team is nonparticipating, there is a four step process in place. Upon recognizing a deficiency, the team will meet with that individual to illustrate the points that warranted meeting as a result of that individual's lack of performance. If that individual continues to not participate, a formal letter will be sent using the template provided by Dr. Leverington. If no change has been made at that point, Daniel will be informed of the situation and will be asked to guide the rest of the team towards the best course of action. Finally, as a last resort, the participating team members will inform Dr. Leverington of the situation, and will be the final word as to the steps needed to be taken.

Tools and Document Standards

For the codebase, our team will be using GitHub. The purpose of the codebase is to easily share the codebase, track ongoing changes, and preserve past versions of the code. To do these things, the team has to establish ground rules that every member of the team must follow to ensure that the codebase is functioning properly. One of the first rules is committing (or “commits”) to the codebase. Commits should be used to inform other team members of changes to files within the code base; should always contain messages to inform other teammates of changes to these files; should also be used for individual files to help specify changes within these files. Mass commits to multiple files should be avoided at all cost unless the developer fixes multiple of the same line of code in multiple files, such as fixing a multiple while loop that indexes out of bounds.

Pushing code to the code base is the main function of version control. To ensure that no pieces of code are overwritten and that the codebase stays in sync, we have decided on some rules. The first rule is that under no circumstances should a direct push be conducted to the main branch. The second rule is to make a branch when working on code/features to add to the codebase. The branch should be named in a manner that other members can easily identify what the developer(s) are working on. Once the developer(s) are done and push the branch up to

GitHub, the code will be reviewed. If the reviewing developer *does not* deem the code worthy of being merged yet, they will write a review and the branch will continue to be worked on and try to push it again. If the reviewing developer *does* deem the code worthy then the reviewer will merge the branch into main.

For tracking progress with tasks and keeping tabs on current issues, GitHub projects alongside GitHub Issues will be implemented. GitHub Projects will be used to make tasks for deliverables and the codebase where tasks can be assigned to team member(s) responsible for them. GitHub issues will be used to help document bugs and keep updated on any issues within the project.

For word processing, the team has agreed upon using Google Docs to easily update and view progress on deliverables. For presentations, Google Slides will be used since it is easily accessible and progress on the presentation is readily available.

For reviewing deliverables, the team members will select a reviewer three days before submitting the assignment. Deliverables that are not task reports should be delivered three days in advance.

Team Self Review

The purpose of this agreement is to establish guidelines for self and peer review within the team. Setting guidelines will ensure that all team members are held accountable for assigned code and tasks, while maintaining a high level of quality.

Each team member is responsible for reviewing their work before submitting it for team review. Self-review involves checking for accuracy, completeness, and quality. Updating the task report and notifying the team of completion is necessary for each assignment. In addition, each member must follow the standards established by the team.

During the team meetings, a Google document will be filled out by each team member containing self-reflection questions about individual work for that week. These questions will include struggling with assignments, progress, how communication is going, and other topics. By completing this form, the team leader will be able to see the answers and a discussion as a team will be held on how to improve and support one another.

Only constructive criticism will be accepted; help and support will be offered to the struggling teammates instead of blaming that individual. If consistent problems occur, a meeting will be held with the mentor to discuss the reason for the error by the individual. If conflicts occur, the team journal will be updated with the resolution (if any), as evidence to keep the team on track.

If a team member consistently fails to meet the team standards established in this document (up to a limit of 4 documented offences), the team may ask to meet with the individual during or outside of the mentor meeting with Daniel to discuss the issues and determine a solution. If the issues persists (up to 2 additional offences), the team may escalate the matter to Dr. Leverington to discuss possible disciplinary action.