



Team Standards

Team: Nimbus Technology
Sponsor: IBM

Faculty Mentor: Austin Sanders

Team Members:
Itreau Bigsby
Matthew Cocchi
Richard "Riley" Deen
Benjamin George

Intro:

This is a document to formally nail down specifics for how our team will operate. This includes roles for each team member, expectations for satisfying those roles, how we will conduct our team meetings, project management and development tools we will use, as well as how we will conduct internal self-reviews.

Team Members and Roles:

Team Leader: Benjamin George

This team member coordinates task and assignments, ensuring that consistent progress is being made towards them. The team leader is also responsible for running meetings, and making initial efforts to resolve conflicts within the team. The team leader is also the primary contact with the client and faculty mentor, and is contacted first by anyone wishing to get in touch with the team.

Recorder: Itreau Bigsby

This team member takes detailed minutes during meetings. This includes the meeting being and end times, as well as the topics discussed, and any decisions made. Doing this allows for detailed documentation of all meetings for future reference, especially in the event of a dispute over assigned work.

Architect: Matthew Cocchi

This team member is primarily responsible for ensuring that core architectural decisions are followed during implementation. Examples of this are making sure data structures are implemented correctly, ensuring that each team member uses the language(s) and framework(s) specified for their work, and enforcing internal coding standards (e.g. camelcase, docstrings, indentation, etc.).

Release Manager: Richard Deen

This team member oversees project versioning and branching, reviews and cleans up commit logs for accuracy and readability, and ensures that any build tools can quickly generate a working release. This team member also coordinates merging branches into the trunk when work is completed. Finally, this team member will handle printing, binding, and delivering of any deliverables due to Dr. Doerry.

Coders: Itreau Bigsby, Matthew Cocchi, Richard Deen, Benjamin George

Each member of the team will be responsible for producing viable code. However, specific coding roles cannot yet be determined, but will be designated as the team learns more about the requirements of the project and how each member's skills can cater towards those requirements.

Team Meeting Expectations:

Meeting Times:

Nimbus technology will meet as a team twice on Friday. The agreed upon times for both meetings are listed below:

- Personal Team Meeting: 1:00pm - 1:20pm Friday
- Mentor Team Meeting: 1:30pm - 2:00pm Friday

The purpose of scheduling these meetings back to back is to allow the team to voice any concerns they have, and narrow down the topics of discussion for the meeting with the team's faculty mentor. This ensures that the team can maximize time spent with the mentor by dedicating that time only to the issues the team finds most pressing.

Any additional meetings will be agreed upon by the team as needed, taking into account all scheduling availability among the team members. Considering that the team members' schedules have little overlap outside of the above scheduled meetings, attendance for unscheduled meetings will likely not be mandatory.

Agenda Structure:

There will be two separate agenda structures: A Personal Meeting Agenda and a Mentor Meeting Agenda. The specifics regarding both are outlined below:

Personal Meeting Agenda:

- Each meeting will begin with a "standup." Each member will have a moment to "standup" and discuss their progress on the project, including what they have accomplished since the last meeting, and what they are currently working on.
- The meeting will then go into the specifics of new issues, as well as possible solutions to known issues.
- This time will be less formal, instead serving as an opportunity for the team to gather their thoughts before the mentor meeting.
- The meeting will conclude with a brief summary of what was discussed and what will be brought to the mentor meeting.

Mentor Meeting Agenda:

- The meeting will begin with an overview of progress, issues, and possible solutions, to keep the mentor up to date.
- Following the update, the team will use this time to ask the mentor for guidance (could be regarding potential solutions to problems, breaking a voting tie, etc.).
- The meeting will conclude with a brief summary of what was discussed along with any items that will need to be discussed/resolved at the next meeting.

Meeting Minutes:

Minutes will be recorded at every meeting using Google Docs. Specifics regarding meeting minutes are outlined below:

- Minutes will be recorded by team member Itreau Bigsby unless the team votes otherwise at a later time.
- Following each meeting, the minutes will be archived in the team's Google Drive under the "Minutes" folder.
- Meeting minutes must contain (but are not limited to) the date recorded, items discussed, items to discuss at a later time, team member absences, and a brief summary followed by important details.

Decision Making Process:

Decisions will need to be discussed among the team regarding design, tools, architecture, platforms, etc. The specifics regarding the decision making process are outlined below:

- If a decision must be made regarding the project/team, a vote will take place regarding the outcome.
- A three-quarters voting majority is required to make a decision.
- Should the vote be split 50/50:
 - For major decisions, the team will consult the faculty mentor, taking their advice as a fifth vote to break the tie.
 - For minor decisions, the group may choose to flip a coin. If this is decided against, the team will consult the faculty mentor.
- If the faculty mentor is unwilling or unable to provide input, the team will ask Dr. Doerry for his opinion as a fifth vote.
- Should Dr. Doerry also be unable or unwilling to provide insight, team will have no choice but to flip a coin to break the tie.

Attendance:

Attendance for all *scheduled* team meetings is mandatory. Whether attendance is mandatory for unscheduled meetings will be determined on a case-by-case basis. However, permissible excuses won't be penalized (e.g. illness, family emergencies, etc.). Below are additional expectations regarding attendance:

- If a team member will not be able to make a team meeting, they must notify the team lead at least 24 hours ahead of time if possible.
- Any absences of team members will be recorded in the Team Minutes for that meeting.
- Any unexcused absences after the first will count as an offense by the absentee (see Conduct section below for more information regarding offenses).
- Absent team members will be expected to catch up with the team and current objectives, either by the archived meeting minutes, or in the team's Slack chat.

Conduct:

This section outlines inappropriate conduct by team members and the offenses that will follow. Nimbus Technology feels that the items discussed below are well within reason.

- Minor Offenses: Arriving late to a meeting, maintaining no communication with the team for an extended period of time, and the first time submitting late work, are all considered minor offenses.
 - “Extended period of time”: In the three days leading up to a deliverable deadline, a full day without communication from a team member will be considered an extended period of time. The team will enforce a policy of frequent communication, especially nearing deadlines, to ensure that all members of the team understand the work they have been assigned and when that work is due.
 - “Late work”: Any work by a team member not submitted in time for Riley to print/bind/deliver is considered late work. This is typically 1 PM the day of the 5 PM deadline.
- Major Offenses: Being absent to a meeting without letting the team lead know ahead of time, merging nonviable code, unprofessional behavior with the team’s client, and repeated late work, are all considered major offenses.
- Cumulative Minor Offenses: Repeated minor offenses will be treated as a major offense; two or three minor offenses is equivalent to a major offense.
- “3 Strikes and You’re Out” process:
 - On a team member’s first major offense, the team will have a polite, but stern discussion with the offending team member regarding the offense. This discussion will take place in the next Personal Meeting.
 - On a team member’s second major offense, the team will discuss the issue with the faculty mentor at the next Mentor Meeting, and seek advice regarding the behavior of the offending member.
 - On a team member’s third major offense, the team will have a discussion with Dr. Doerry regarding potential solutions, including the possibility of firing the offending member.
- A log of all minor and major offenses will be maintained by Itreau, and archived in the team’s Google Drive.

Tools and Document Standards:

Version Control:

This section will discuss the standards surrounding maintenance and management of the team's codebase, especially concerning committing and merging code.

- Git/Github: The team will use Git/Github to store and manage the codebase.
 - At this time there may also be other applications the client will request that the team use for storing code or delivering software, but until a meeting is had with the client, this is unknown information.
- Master Branch: The master branch will contain all up-to-date work as completed by team members, but only if that work is verified to be compatible with the current state of the master branch and produces no errors.
- Branching: Each member of the team will have their own branch to develop their work in, taking updates from the master branch as team members submit completed work.
- Committing: Team members must not commit nonviable code to their respective branch, unless given the go-ahead by the rest of the team in specific situations (likely for testing purposes).
- Merging: As outlined in the *Conduct* section above, merging nonviable code to the master branch is considered a major offense. Team members are expected to conduct thorough testing of their code's compatibility with the master branch before merging.
- Readability: Team members are expected to write code that is, at the very least, self-documenting. That is, variables and functions ought to be given descriptive names, and code should be structured in such a way that the functionality of the code is easily understood upon reading the code.
- Commenting: Docstrings for each function/method will be required, but comments inside functions should only be necessary in particularly dense sections of code where functionality may not be overly clear.

Issue Tracking:

This section outlines the methods the team will use to assign work to team members and track the progress of each member on their tasks.

- Scrum: The team will use a Scrum-like approach in assigning and documenting project development and other tasks.
- Trello: The team will use a Trello board to manage tasks. While the team lead will discuss assignments with the team and split up the work according to each member's skills, Riley will manage the Trello board and the tracking of progress.
 - The board will have several tabs, with each task being represented with an individual note on the board.
 - The board will have categories for "Backlog", "To Do", "In Progress", and "Completed". Each team member will have a separate "In Progress" tab, to ensure that team members know what work is assigned to them.
 - "To Do" will contain the tasks that are most pressing, and of higher priority.
 - "Backlog" will contain the tasks that are of lower priority, but that the team must still attend to.
 - "In Progress" will contain each team member's currently assigned work.
 - "Completed" will contain all tasks that have been completed by the team.
- The team will also use a Slack channel and weekly meetings to discuss what tasks should be moved between "Backlog" and "To Do", as well as to whom a given task should be assigned.

Word Processing and Presentation:

This section covers the tools the team will use to create documents and presentations.

- Google Drive: The team currently has a Team Google Drive set up, with folders for document drafts, final versions of documents, and meeting minutes. This will be the team's primary method of archiving documents.
- Google Docs: For any deliverable document, Google Docs will be used by the team. If necessary, documents will be split into sections that are assigned to different team members, who will each write their section in a separate draft. Whoever is assigned the task of lead editing for that document will then take those sections and merge them together in a way that ensures consistent style and tone.
- Microsoft Powerpoint: Considering that the team's client is not located in Flagstaff, live demonstrations of the team's work will not be viable. Thus the team will have to record demonstrations of the software working, and include those recordings in presentations. This necessitates the use of Microsoft Powerpoint instead of Google Slides.
- Team Contribution: Each member of the team is expected to contribute to all documents, unless otherwise specified. Each team member is also expected to contribute to team presentations, particularly in speaking about the work they have completed.

Composition and Review:

This section outlines the process the team will use when creating documents.

- Short Documents: For any documents estimated to be only one or two pages, a single team member can handle the task of drafting the document.
- Long Documents: For documents longer than two pages, the document will be split into sections which will be assigned to different team members. One member will act as “lead editor”, merging the completed sections into a single seamless document.
 - Lead Editor: The lead editor will likely not be responsible for drafting any sections of the document, instead only working on creating the final document. The lead editor may not always be the same team member for every document.
 - Formatting: To ensure that the final document has consistent style and tone, the lead editor is responsible for revising the drafted sections.
 - Deadline: To ensure that the lead editor has time to create the final document, all drafted sections must be completed by their respective team members 36 hours before the 5 PM hardcopy deliverable deadline.
- Printing: All documents will be printed by Riley, unless otherwise noted.
- Binding: Any documents of length 5 pages or shorter need only be stapled. Any documents longer than 5 pages will be professionally bound by the team member responsible for printing them.
- Delivery: The team member responsible for printing a document will also be responsible for delivering the document to Dr. Doerry’s office by his listed deadline, unless otherwise agreed upon by the team. Failure to do so will count as a major offense.

Team Self Review:

This section will provide a short overview of how the team will conduct Self Reviews.

- Frequency: Due to team members’ conflicting schedules and little availability for meeting times, Self Reviews will only be conducted once per month.
- Time: Once per month, a Personal Meeting will be replaced with a meeting in which the team will discuss overall progress and performance of each member.
- Content: Before each Self Review session, it is critical that each team member write down their thoughts on their own performance, particularly with regard to timeliness and quality of their work.
- Format: Where a normal Personal Meeting would have a “standup” for each team member, a Self Review will be conducted, in which each team member voices their prepared thoughts on their own performance. For each member, the rest of the team responds with constructive feedback.
- Feedback: It is critical that team members be honest with each other about impressions of each other’s work. Criticism of underperforming members provides motivation to improve, and praise of adequately performing members provides motivation to continue to work hard.