

Milestone 1: Team Workflow

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This is an assignment inspired by the [Computer Game Development Course at Cornell University](#).

Due: 9/21 Monday at 11:59pm EST

The team workflow is a document that outlines team roles. It also gives us information about organizational issues, like team meeting times. This helps us send course staff to aid you and helps us to follow your progress.

The main purpose of this document is to give you some rules to fall back on should everything fall apart. As a general rule, groups work pretty well in this course. However, any good working group will have some measurements in place if something goes awry.

Team Folders

All written work will live in the team's OneDrive. This includes slides and deck docs, too. It is expected that all students will write, edit, and present equally. Before anyone starts writing, review the writing guidelines . Everyone is expected to know and follow them from the first day. In creating your OneDrive, you should do the following:

- Name the drive ECE444_F2020_groupNumber (example: ECE444_F2020_group1).
- Invite all team members to the folder

- Invite the instructor (shurui.zhou@utoronto.ca), and Your assigned TA (see corresponding email address on course webpage).

Document Format

The team workflow should be the first document created in your OneDrive. Format the workflow as a memo. Memo formats are popular in industry, and you can find templates online. Most importantly, a memo has a date, so you can change the date whenever the workflow document must be changed.

Note: It is very important that your entire team agrees to the document before you submit. Reread it carefully before submitting it. One of the first things that we want in the document is an affirmation that everyone has read the document and agrees with it.

We have included a [sample document](#) for you so that everyone can see what we are looking for. This memo is annotated to show off the important parts. Your memo should start with the following header:

Title: [GroupNumber-GroupName] Workflow (example: [Group 1 – Swifters] Workflow)

Date: Whenever you finalized the most recent version of the workflow

After this header, you break your document into several sections.

Section 1: Preamble

In conversation, each member should discuss with the team that grade each person desires. This makes sure that everyone understands the commitment level from each team member. This should **not** be reported to the instructor. However, the workflow document should state that this has been discussed and understood by all in this preamble section.

The second item for the preamble is a statement that everyone on the team has read and understood the writing guidelines for the class and will apply them to all communication pieces for the course.

Section 2: Team Roles

The first major section of the document should list all of the team members and their roles. For each team member we want the following:

- The member's preferred name
- The member's preferred contact e-mail
- The member's role on the team
- A short, positive-sounding paragraph on the member's skills
- A bullet-point list of the member's duties (which may change over the semester)

You can see how we formatted this in the [sample document](#). The sample we have provided does not include a Task Table, but your team will be asked to provide one. Read on for more information.

Note: It is usual business practice to use people's LAST NAMES in documentation, out of both tradition and respect. Please follow that protocol.

Team must determine at least the following roles on the team:

Project Manager

This person is in charge of assigning tasks and keeping the team on top of deadlines. They are also responsible for gathering together the information for the bi-weekly reports (though everyone is expected to contribute). This should be someone who can get along with everyone on the team.

Software Lead

This person is in charge of the architecture decisions on the project. They lead the design of the architecture specification and have final say on all class interfaces. They also assign programming tasks to the other members of the team. This should not be the same person as the Project Leader

Backend&Frontend Developer

Software developers transform the ideas and requirements into a piece of a working product. As developers are working on building the necessary product features, they are the ones who affect the performance of the whole team the most. Apart from actually coding, the development team is usually responsible for making time estimates according to technical requirements and communicating the status of the features. Make it possible for developers to review each other's code, considering ways to make work easier and faster. Bringing different experiences and learning from each other contributes to the project success.

UX/UI designer

While User Interface (UI) design is dedicated to how the application is laid out, User Experience (UX) focuses on the way end users interact with the app during the customer journey. Simply defined, UI represents the way the things look and UX is the way things work. Basically, UI/UX designers are **turning the project idea into a visual thing**. UI/UX designer participates in generating original graphic designs, user interface elements, creating UI mockups and prototypes, and determining and troubleshooting the UX problems. One thing to keep in mind: your designer should have an ability to collaborate with business representatives and the development team during the whole project life cycle.

No matter what the roles are, all students **will present, write, and edit equally during the term**.

This early, teams might not be sure about all of the responsibilities that everyone should have. The sample workflow document reads like one that has been written half-way through the course, once everyone has figured out the best way that they can serve the team. This is okay; teams are allowed (and expected) to make changes to the document later on. Right now, just make a good-faith attempt to assign roles to everyone on the team. It is okay if someone has a single responsibility like "Will complete any programming task assigned each week."

Section 3: Team Coordination

Provide information about how the team is going to coordinate its actions all semester long. While you may think of other things that to specify, we expect the following information at a minimum.

1. Meeting Time/s

Your team is expected to have at least one official meeting one hour a week. These are the team's official office hours.

If you are going to meet more than once a week that is okay. Please add this to the documentation as well. However, you should only write down the times for regular weekly meetings. Do not include ad-hoc meetings.

Understand that all meetings should be during a reasonable hour (fit every team member's schedule and time zone).

2. Minutes

During the official meetings, someone needs to write down what was discussed at the meeting and what (general) tasks were assigned to each person. All meeting minutes should be compiled into an ever-growing Doc in the Drive. Share turns taking meeting notes.

3. Communication

Tell us what you plan to use as your main mode of group communication. E-mail? Slack? Google Hangout? Something else?

More importantly, what is the expected etiquette for this communication? For example, in the [sample workflow document](#), there are some basic rules for using e-mail: whether everyone is expected to respond, and when they must respond by. This gives us an official way to determine when someone has "stopped communicating" with the rest of the group and should be reported to the instructor.

4. File Sharing

For code, everyone is expected to use GitHub to manage source code this semester. Other artifacts such as notebook, data, model, design will be stored in your team OneDrive as your working platform.

You will need to create a GitHub repository for the team project. **WARNING: After you join a team, you cannot change teams!** Make sure that only one of you creates the team, and make sure that the remaining teammates join the right team.

Team name: GroupNumber-GroupName

After you have read the above warning, go here to set up your team:
<https://classroom.github.com/g/qb93ej0k>

Tutorial: <https://classroom.github.com/help/create-group-assignments>

5. Task Table

Create a similar version of the table in the [sample workflow document](#). Fill in the last three columns (Writing Leaders, Editors, and Rewrite Leads) with specific people, taking care to rotate responsibilities equally. If this changes during the semester, update the Workflow document. This task table will be

checked by the instructor all semester to sync up with documents, talks, writing, editing, etc. It will be compared to the work shown in OneDrive and GitHub.

Section 4: Conflict Resolution

The last section is where you spell out how you will deal with conflicts in the group. Historically, there are two types of conflicts in this course. There are creative conflicts, where team members cannot agree how the project should be designed. There are also problems when a team member misses a deadline or cannot complete the tasks assigned.

1. Creative Conflicts

In dealing with creative conflicts, there are two popular choices. One is to assign each team member "ownership" of a specific part of the game, and give that person final say for any decisions that have to do with that part. This is what we have done in the [sample workflow document](#). This choice makes decision making very efficient. However, it can make it so that other team members feel like they do not have a real voice in the system design.

The other option is to go full democratic and vote on decisions. This is fine, but if the team does this, **the workflow document must spell out the rules for putting something up for a vote, for counting the votes, and for recording the votes**. We find that the groups that run into trouble are always those that take a democratic approach but do not have established rules for voting.

2. Actionable Consequences to Participation

Missed deadlines are very serious. If someone on the group is regularly missing deadlines without an excuse, we want to hear about it in the 2-week reports. This is exactly the information that we will use to adjust individual grades at the end of the semester.

Teams are also heavily advised to outline consequences for missed course deadlines, which are more serious than internal deadlines. For any consequences described, a solution is NOT "and we will contact the instructor," which is too vague. Of course, contacting the instructor is welcomed, but that consequence needs to be very specific in how it plays out.

Example: "If a member misses input for a course deadline, the project leader will collect evidence from our Slack Channel, our emails, and our GitHub. Those items will be packaged for the instructor and sent as a PDF, along with a recommendation that the person should receive a 15 point deduction for that major deadline."

On a brighter note, each team should also outline the ways in which they can acknowledge when a contributor goes above and beyond the call of duty.

Extra credit: Attach your virtual hangout picture (3pt)

Submission

You should submit a PDF file called **ECE444_[GroupNumber]_workflow.pdf** containing all of the information above. We ask that the file be a PDF so that we can annotate should we need to return it to you for revision.

For this workflow document, we only ask that you submit it once and revisit it often in OneDrive. If we think that it requires revision, we will let you know. Later in the term, we will have other documents (Milestones and 2-week reports) that will impact the Team Workflow document.

However, you will probably find that you need to revise your workflow as the semester goes on. Someone might need to gain new responsibilities, or shift current responsibilities to another team member. You might need to change the Software Lead. You might need to change your rules for handling conflicts. At the end of each two-week report, you will be asked if you have made any changes to your workflow. If so, you will resubmit this memo with the changes and the date that they take effect.