

Leading A Group

Leading a Group

- A group needs a leader
 - A leader is responsible for making final decisions
 - The leader is responsible for assigning tasks
 - The leader is responsible for making sure tasks are completed on time
 - Sample Tasks
 - Designing
 - Coding
 - Quality Assurance including testing and reviews
 - Documentation including Javadocs and UML diagrams
 - Management – usually done by leader
- The leader can change over the semester if that is what the group wants

Leadership Styles

- Dictator – not desirable
 - They come up with all the ideas and unilaterally make all of the assignments and decisions
 - Everyone else serves the dictator and does what ever he/she asks
- Democracy -- slow
 - Ideas can come from anyone
 - Decisions and assignments are made by consensus
- Benevolent Dictator – often best but should be an egoless dictator
 - Listens to all ideas makes final decisions
 - Listens to suggestions or volunteers but makes final assignments

Simple Project Management Tool

- The Pert/Gantt Chart
 - An example of free software
 - <http://www.ganttproject.biz/>
- Concepts
 - Work breakdown structure – divide each phase into a set of tasks, each of 1 to a few days duration
 - Order the tasks into a directed acyclic graph where the edges represent task dependencies
 - Assign start dates, due dates, and expected duration (measured in hours) for each task
 - These can be adjusted as needed
 - Assign each person or persons to a task
 - Identify critical paths

The Leader

- On a frequent basis, monitors progress of all tasks, especially those on the critical path or a path that has just become critical
 - Frequent can be every day or every other day
- Adjust resources and estimates as necessary

Expected Weekly Report from Leader

- List of All Tasks with assigned people, start dates, expected end dates, expected duration, and actual duration so far
- For all finished tasks, mark as finished – color coding is useful
- For all unstarted tasks, mark as not started – color coding is useful
- For all started but not completed tasks indicate % complete
 - The actual duration / expected duration should yield the % complete
- Indicate the number of hours worked for every team member, if this does not match the “Pert/Gannt” chart information then add or delete tasks and modify expected and/or actual durations for tasks as needed.
- This report should be reviewed by all team members
- A final report should be generated for every phase
 - The final version is typically the weekly report for the last week of a phase
 - The phase is not complete until the final report is turned in
- Spread sheets make this somewhat painless