| cc logo.png | **School of Engineering Technology and Applied Science***Information and Communication Engineering Technology*Software Development Project I (COMP231)Progress Monitoring (5% split 2.5% for Iteration 1, 2.5% for Iteration 2)Due Date: Sunday of Week 10 (Iteration 1) and Week 12 (Iteration 2) by 11:59pm EST (late penalty at 20 points per day; zero after 5 days)[[1]](#footnote-0) |
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## MEASURING VELOCITY

When planning the project, we either used a known velocity (if we had one, perhaps from another similar project) or we made one up. Velocity can be a useful management tool, so it is important to look at the team's velocity at the end of each iteration as well as during the iterations.

If the release plan assumed a velocity that is significantly different from the calculated velocity at the end of an iteration, it may be necessary to reconsider the project plan. However, be careful about adjusting a release plan too early.

Not only is an initial velocity prone to error, it can also be very volatile during early iterations. You may want to wait two or three iterations until you have a longer-term view of velocity.

Do not include partially completed stories[[2]](#footnote-1). If there are many partially complete stories at the end of an iteration, evaluate the size of your average story and consider striving for smaller stories; a possible symptom may be a lack of teamwork on the team.

At the end of an iteration when determining velocity, it is far easier to forego half of a one-point story than it is to ignore a twelve-point story.

## MONITORING CHANGES

You are required to submit a table illustrating progress and changes for all iterations per Release[[3]](#footnote-2); [Table 1](#xkgj511a7g9u) shows a sample project showing progress and changes for four iterations.

| Table 1: Progress and changes for a hypothetical release with four iterations [1]. |
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In Table 1, the first value (i.e.,130) in row “*Story points[[4]](#footnote-3) at start of iteration*” represents the summation of all estimated hours for all stories; recall that the Wide-Band Delphi approach was used to perform the estimation.

The values in row “*Completed during iteration*”denote the summation of all estimated hours for stories completed stories during a given iteration.

The values in row “*Changed estimates*” reflect whether you underestimated or overestimated your stories’ value. For example, in *iteration 3* in Table 1, the *-3* is an indication that you overestimated and so a deduction to the total story point is required; this deduction could be the story is no longer relevant or has become less valuable to the project/company. A positive value implies that one or more of your stories have a higher value than you originally thought.

The values in row “*Story points from new stories*” reflect new stories that were not captured during low-fidelity prototyping. The values could be the result of splitting stories or spikes.

The values in row “*Story points at end of iteration*” is calculated as follows:

**“*Story points at end of iteration*” =**

**“*Story points at start of iteration*” - “*Completed during iteration*”**

**“*Changed estimates*” + “*Story points from new stories*”**

For the values in “*Changed estimates*” and “*Story points from new stories*”, use footnotes to explain the values.

All tables and figures must be accompanied by a discussion of the outcome of the plots. Keep in mind that no project plans are ever perfect because if they were, then the Agile approach would never have been created in the first place.

[Figure 1](#c6lein2b540s) is the *iteration burndown chart* of the data from [Table 1](#xkgj511a7g9u).

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| Figure 1: Iteration burndown chart for data from [Table 1](#xkgj511a7g9u). |

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### Written Report

Your team is required to submit and perform the following in this deliverable[[5]](#footnote-4):

1. A table showing the updates from Iteration to Iteration for the project (see the example from [Table 1](#xkgj511a7g9u)). 2 pts. deduction for missing data items. *[30 pts.]*
2. A discussion of the changes from Iteration to Iteration for each row element from [Table 1](#xkgj511a7g9u), focusing on the digression from the initial Iteration plan and the end of the Iteration. 2 pts. deduction per missing discussion. *[30 pts.]*
3. Plot an iteration burndown chart using the velocity data as discussed above. 2 pts. deduction for each incorrect element. *[20 pts.]*
4. Create a project and have each team member join the code repo where you will be hosting your project. If you are choosing Github, then invite me to your project; my Github handle is “haocencol” (no quote). If you are hosting your code on another code repo, then send me instructions to enable me to join your project. 5 pts. deduction if you archive your project code when uploading onto the repo. *[10 pts.]*
5. Demonstrate that your team uses the code repo beyond storage but for collaborative coding (i.e.,social coding, wiki, issues, etc.). *[10 pts.]*

*[Total: 100pts]*

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### Notes on how to submit your work

* Create a nested folder for this deliverable inside your main shared folder (the video(s) and written reports are to be placed in this folder). You can create additional nested folders to separate the video(s) and written reports if you feel it will enhance organization.
* Give self-descriptive names to your files. For example, “01 Team Doe - low fidelity prototype video” (no quotes).
* A 0.5% deduction will be enforced for each occurrence of poor folder organization and poor naming of files and folders.

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## REFERENCES

1. Cohn, Mike. 2004. User Stories Applied: For Agile Software Development, Addison-Wesley Professional.

1. Monitoring your project is an ongoing requirement once your team starts code development. [↑](#footnote-ref-0)
2. This includes all tasks belonging to a given story. [↑](#footnote-ref-1)
3. For subsequent releases, do NOT restart numbering the Iteration. For example, let us assume that we have another release (i.e., Release 2.0), we would continue numbering our Iterations as *Iteration 5, Iteration 6,* and so on. [↑](#footnote-ref-2)
4. A story point is a nebulous unit of measure. For our purposes, *one story point* is equivalent to *one ideal developer hour*. An *ideal developer hour* represents the actual time required to complete a story such as the time spent (i) coding, (ii) designing (e.g., UML diagrams), and (iii) quick design sessions. *Ideal developer hour*s does not include entire team meetings, emails, texting, etc. [↑](#footnote-ref-3)
5. All write-ups are required to be in essay format (the numbered list acts only as a checklist to ensure your writeup contains all the required points). [↑](#footnote-ref-4)