Milestone 3—Project Identification

This milestone is to be completed as a team.

OBJECTIVES

The objectives of this milestone are three-fold:

• Identify several possible projects that you might complete for your term project.

• Reach agreement with me on your term project.

• Plan "user stories" to be completed by next week.

REQUIREMENTS

You have two tasks for this milestone:

1. Prepare a document, with a section for each bullet point below, identifying possible projects that your team could work on. Although you may already have a project in mind, use the process below to spark your creativity. Try to have fun with this!

    • *Team information*: Be sure to include your team name, team members, and chosen language in your document.

    • *Brainstorm project ideas*: As a team, list 30 different project ideas. You'll have to be a bit crazy to do this. Remember the number one rule of brainstorming: no squashing. Just come up with 30 different ideas. Don't worry about their practicality at this stage. Here are some prompts: What's a ridiculously large project? What's a project that has the potential to improve society? What's a project that has the potential to improve your checking account balance? What's a project that you'd like to use? What's a project that would show off the features of our language?

    • *Brainstorm selection criteria*: As a team, list 15 different criteria that you might use to evaluate project ideas. Some examples are "appropriate scope", "interesting to everyone on team", and "appropriate use of the language chosen".

    • *Identify the most important criteria*: Identify the 5 most important criteria from your list of fifteen. Weight each of these criteria by distributing 10 points between them. For example, if you think they are all equally important, you could make each of the five be worth 2 points. If you think that one criterion is very important and the others much less so, you could make that one worth 6 points, and the others worth 1 point each.

    • *Identify top project ideas*: From your list of 30 project ideas, pick 5 that you want to evaluate. Expand on these 5 by writing a couple of sentences describing each.

    • *Rate projects*: Create a table, like the one below, that lists your 5 chosen projects down the left and your 5 most important criteria across the top. For each criterion, *rank* your projects from 1 to 5, with a 5 going to the project that best meets the criterion and 1 to

the worst. *This is a ranking, so **no ties are allowed***. Calculate a weighted score for each project based on the weights of the individual criteria as shown in the example.

Table 1. Sample project rating table

	Crit. 1 (weight 3)	Crit. 2 (weight 3)	Crit. 3 (weight 2)	Crit. 4 (weight 1)	Crit. 5 (weight 1)	Total Score
Project 1	4	1	4	4	1	28*
Project 2	3	5	1	2	2	30
Project 3	5	3	3	5	4	33
Project 4	1	2	2	3	5	21
Project 5	2	4	5	1	3	32

*–For example, the score for project 1 is $4\times3 + 1\times3 + 2\times4 + 4\times1 + 1\times1 = 28$.

- *Expand on top two ideas*: Select your top two project ideas based on this rating. (You should feel free to iterate on the weighting process if your "gut feel" tells you that the projects that scored the most points aren't really ones that you would want to do.) Write a brief description for each of your top two ideas, including the scope of the project, why your team is interested in working on it, why you think it is an appropriate project for the course and your chosen language, and what you think the biggest risk is for the project.

2. During our weekly team meeting, discuss your team project ideas with me. The agenda for this meeting will be:

   - Demonstrate your development environment

   - Agree on your team's project

   - Determine "user stories" to be completed by the next meeting

SUBMISSION
Submit your document *by email* to me (clifton@rose-hulman.edu) *as a PDF file*. No other formats will be accepted. Please be sure to include your team name.

DUE DATE
The milestone due date is indicated on the class schedule posted on-line.

GRADING
Please see the grading rubric below.

Milestone 3 Rubric

Team: _____

Criteria	Score	Possible
Team name given		5
Language identified		5
Project idea brainstorming (1/3 point each)		10
Selection criteria brainstorming (1/3 point each)		5
Criteria identification and weighting		5
Two sentence descriptions of top 5 project ideas (3 point each)		15
Project weighting table		15
Detailed descriptions of top 2 project ideas		40
Total		**100**