01 – FOSS Project Structures & The FarmData2 Community Activities

Name:

FarmData2 is a free and open source software (FOSS) project that is being developed as a partnership between the computer science program and the Dickinson College Farm. The FarmData2 project will be central to our work through the rest of COMP 190 and to the project work in the COMP 290 course next semester.

In today's activities you will learn more about the structure and content of FOSS projects and the FarmData2 project in particular. This will include some of the non-code elements of FOSS projects that support and protect the communities of contributors that make them possible. As projects grow and evolve these non-code elements benefit from regular review and refinement. Thus, some of the activities will ask you for input and your thoughts on them. Your feedback will be valuable in ensuring that the materials encountered by newcomers to the FarmData2 FOSS community are clear, welcoming, supportive and inclusive. You'll then dig in and perform a developer install of FarmData2.

Then through the remainder of this activity, and the next two you will have the opportunity to make direct meaningful contributions to the FarmData2 community and application. If you return next semester for COMP 290, you will continue work on FarmData2 by beginning to develop new features that customize it to the needs of the Dickinson College Farm and other similar small organic farms.

Exploring some Mature FOSS Projects:

FarmData2 is a fairly new project. But it aims to become a mature full-fledged FOSS project with active user and developer communities. In this section you'll explore a few mature FOSS projects to give you a feel for what very successful FOSS projects look like. They will give you some comparison points and a basis for imagining the future of FarmData2. As FarmData2 is a new project, your perspective will help to improve its present state and to shape its future.

1. The table below identifies a number of mature successful open source projects. Like FarmData2 these projects all aim to contribute in some way to the greater good. FOSS projects like these with broadly interpreted humanitarian goals are often referred to as Humanitarian Free and Open Source Software (i.e. HFOSS). For each project, find the URL of its primary web presence, its code repository (e.g. on GitHub) and give a few sentence description of the project's mission and how it serves the greater good.

Project Name	URL	Mission
OpenMRS	Web:	
	Repo:	
Fineract	Web:	
	Repo:	
Sahana Eden	Web:	
	Repo:	
Sugar Labs	Web:	
	Repo:	

2. Pick one of the projects above that is of the most interest to you and explore its website and code repository for 10-15 minutes to learn more about it.

a. Which one of the above projects did you explore?

b. What about that project made it appealing to you?

c. A project's mission is often what draws new community members to the project. But how well the project is structured and run, how easy it is to learn about, and how welcoming it feels can affect whether new members engage or leave. Take on the mindset of a new developer thinking about engaging with this project. As that developer, focusing now not on the mission of the project, but on the way the project's materials and resources are organized.

i. In a few sentences describe something that you liked about the way the project was organized and that might make you want to continue engaging with the community.

ii. In a few sentences describe something that you did not like about the way the project was organized that made it hard to understand or learn about.

FarmData2 Repository:

3. Find the main upstream repository for FarmData2 in the DickinsonCollege GitHub organization. What is the URL of this repository?

4. The contents of which file are displayed by GitHub by default at the bottom of the main page of the repository?

5. What is the mission of FarmData2?

Starting a New Open Source Project:

As FarmData2 is a new project it will not be as fully developed as those you looked at above. However, there are some things that all projects should do, even from the very beginning. The following activities are based on the document "*Starting an Open Source Project*" from the Opensource.guide project:

- https://opensource.guide/starting-a-project/

Section 1 provides a review of FOSS communities and principles. Section 2 discusses reasons for starting an open source project. Read each of those sections for review and context.

Section 3 talks about "Launching your own open source project." While you are not launching your own project at this point, knowing what goes into starting one will also help you better understand the organization of existing projects. Section 4 talks about "Naming and branding your project" which includes aspects of tone and style. In the activities below you will use the information from Sections 3 and 4 to recognize, locate, understand and critique some the resources in FarmData2 and the HFOSS project that you selected earlier in question #2.

6. Section 3 of Starting an Open Source Project identifies four types of documentation that every open source project should have. What are they?

You will find everything you need to know about FarmData2 in its main GitHub repository. For the open source project that you chose in question #2, you may have to search through its repository and/or its web site to find the relevant documentation. If you are unable to locate any of the relevant documentation for your chosen project after a few minutes of searching around the site and repo indicate this by stating "Unable to find." That said, all of the listed projects are solid mature projects and I expect that they will have the majority of the requested information somewhere, so don't give up too quickly.

Before you start, please note that unlike other course projects you may have worked on, FarmData2 is a real live project, and its development does not necessarily conform to a class schedule. We come to it in the state that it is in right now. It will be imperfect and incomplete. It will be changing and improving. This is what makes it exciting. It also means that it is expected that you will find shortcomings, flaws and mistakes in it. Identifying and communicating these findings helps improve the project. So, don't hesitate to provide critical constructive positively phrased feedback in the following questions. It is exactly that type of input from the community that will help to move FarmData2 forward.

Open Source License:

7. Based on Section 3 of Starting an Open Source Project, what is the purpose of the open source license?

8. Complete the table below for FarmData2 and for the project you selected in question #2. In the License column give the name of the licenses that apply to the code and to other content (e.g. documentation) in the project. In the Location column give the location where the license information was found. If the information appears in a file in the repo give the path to that file. If the information appears somewhere else, give the URL of where it was found.

Project	License	Location
FarmData2	Code:	
	Other:	
	Code:	

	Other:	

9. Read the “Contributions” section of the LICENSE.md file for FarmData2.

a. What document is used to certify that developers who contribute to FarmData2 have the right to give FarmData2 a license to use what they contribute?

b. Read the document that you identified in a. Now imagine that you are working on FarmData2 and have added a new feature. For each of the following statements, indicate the clause of that document - (a), (b) or (c) - that would apply to your contribution:

i. Instead of writing all of the code from scratch you find some useful code in another open source project an incorporate that into your contribution.

ii. You have written and tested all of your code.

iii. You talk to some friends about you feature. Later, one of them sends you a function that they had written and tells you that they wrote it and that you can use it if you find it useful.

10. Consider the LICENSE.md file for FarmData2 that you have been reviewing. Is there anything that could be communicated more clearly? Is there anything missing that should be there? Is there anything there that could be omitted? Are there any other ways you might improve this file? These are just examples of the types of questions you might answer here. You are not required to answer all or any of these questions. Nor are you limited to these questions in your comments. However, any thoughts you are willing to provide will be appreciated and helpful in improving FarmData2.

README:

11. Based on Section 3 of Starting an Open Source Project, what is the purpose of the README file?

12. Complete the table below for FarmData2 and for the project you selected in question #2. In the question column give the four questions that a README should answer. In the project columns, indicate [yes| no | partially] for each question to indicate if the project's README answers that question.

	Project	
Question	**FarmData2**	

13. Compare the README files for FarmData2 and for your chosen project. Is there anything in your project's README for which FarmData2 should include similar information? Is there anything in the FarmData2 README that could be communicated more clearly or more completely? Is there anything in the FarmData2 README that should be omitted? Are there any other ways you might improve this file? These are just examples of the types of questions you might answer here. You are not required to answer all or any of these questions. Nor are you limited to these questions in your comments. However, any thoughts you are willing to provide will be appreciated and helpful in improving FarmData2.

Contributing Guidelines:

14. Based on Section 3 of Starting an Open Source Project, what is the purpose of having a contributing guidelines document?

15. Find the document that contains information about contributing to FarmData2 and for the project you selected in question #2. Then, fill in the Contributing Guidelines column in the table below. Give the location where the information was found. If the contributing guidelines information appears in a file in the repo give the path to that file. If the information appears somewhere else, give the URL of where it was found.

Project	Contributing Guidelines
FarmData2	

16. Complete the table below for FarmData2 and for the project you selected in question #2. In the Contribution Guideline column give the three main types of information that contribution guidelines should provide. In the projects columns, indicate [yes| no | partially] for each question to indicate if the project's guidelines document identified above provides that information.

	Project	
Contribution Guideline	**FarmData2**	

17. Compare the contribution guideline for FarmData2 and for your chosen project. Is there anything in your project's guidelines for which FarmData2 should include similar information? Is there anything in the FarmData2 guidelines that could be communicated more clearly or more completely? Is there anything in the FarmData2 guidelines that should be omitted? Are there any other ways you might improve this file? These are just examples of the types of questions you might answer here. You are not required to answer all or any of these questions. Nor are you limited to these questions in your comments. However, any thoughts you are willing to provide will be appreciated and helpful in improving FarmData2.

Code of Conduct:

18. Based on Section 3 of Starting an Open Source Project, what is the purpose of a code of conduct in an open source project?

19. Complete the table below for FarmData2 and for the project you selected in question #2. In the Code of Conduct column, give the location where the information was found. If the Code of

Conduct information appears in a file in the repo give the path to that file. If the information appears somewhere else, give the URL of where it was found.

Project	Code of Conduct
FarmData2	

20. Read the code of conduct for FarmData2 and answer the following questions:

a. What is the code of conduct called?

b. What two pledges does the code of conduct require of those in the community?

c. Who are the community leaders that are responsible for enforcing the code of conduct?

d. What are the four levels of enforcement?

e. What is the original source of this code of conduct?

21. As pointed out in the Starting an Open Source Project article, this particular code of conduct has been adapted by tens of thousands of open source projects to guide the behavior of their communities. That said, no policy is ever perfect. If you have concerns about this policy, you may describe them here. Or if you are more comfortable discussing them privately, you may contact any of the community leaders you identified in #20c. If you have no concerns, no answer is required for this question.

How you write (and code):

Read the "How you write (and code) affects your brand, too! Part of section 4 in the Starting an Open Source Project article.

22. The language and tone used in a project's communications are important to creating a welcoming, inclusive and supportive community. FarmData2's leaders have attempted to communicate the desire for such a community through the main project documents. However, we recognize that we have limited perspective and thus welcome input and constructive criticism. In reading the materials in the FarmData2 repository:

a. Did you notice any instances of language or tone that are not reflective of the welcoming, inclusive and supportive community that is desired? If so, please point those out here and make suggestions for improvement, if you have them. Or if you are more comfortable discussing them privately, you may contact any of the community leaders you identified in #20c. If you have no concerns, no answer is required for this question.

b. Do you have any suggestion for more general changes or additions to the FarmData2 materials that would better reflect the welcoming, inclusive and supportive community that is desired? If you have no suggestions, no answer is required for this question.

The FarmData2 Community:

When joining a project, the README is almost always the best place to start. Use the information in the READEME (and documents to which it links) to complete the following questions.

23. Most open source projects will use a messaging platform for connecting its community. What platform does FarmData2 use for this purpose?

24. Create an account on the platform and join the FarmData2 community.

a. What is your username?

b. Post a quick message in the **Introduce Yourself *topic*** in the **general *stream***. Your message is your answer for this question, so no response is necessary here. As you write your message, keep in mind that the Introduce Yourself topic is, and will continue to be, a public part of the FarmData2 project.

Optional: To help us improve and scope these activities for future semesters please consider providing the following feedback.

a. Approximately how much time did you spend on this activity outside of class time?

b. Please comment on any particular challenges you faced in completing this activity.