

Software Development Proficiency

Each level of achievement builds on the previous level, from left to right.

| | Meets | | |
|-------------|--------------|--------------|--------------|
| Proficiency | Below | Most | Exceeds |
| (weight) | Expectations | Expectations | Expectations |
| Version | Few | Each | Each |
| Control | com- | com- | com- |
| (10) | mits | mit | mit |
| | are | ad- | mes- |
| | made, | dresses | sage |
| | of- | just | suc- |
| | ten | one | cinctly |
| | ad- | project | de- |
| | dress-con- | scribes | |
| | ing | cern | the |
| | mul- | (atomic) | pur- |
| | ti- | | pose |
| | ple | | of |
| | con- | | the |
| | cerns | | commit. |
| | (not | | |
| | atomic). | | |

| | Meets | | |
|-----------------------|--|---|--|
| Proficiency (weight) | Below Expectations | Most Expects | Exceeds Expectations |
| Issue Management (10) | Few issues are made, with limited comments, labels and milestones. | Effectively uses issues to organize the work, including milestones. | Issues are linked to commits via the comments, messages, and milestones. Issues are used to communicate the organization's work. |
| Readability (5) | Code layout contains many long lines of code. | Code has clear and consistent indentation/syntax-indenting rules. | Code has clear and consistent indentation/syntax-indenting rules and spacing. |

| | Meets | | | |
|------------------------|--|---|---|--|
| Proficiency (weight) | Below Expectations | Most Expects | Exceeds Expectations | |
| Readability Logic (10) | Most names are used are short and unhelpful. | The names are of code elements does their re-flection- their al-purposes. | The Modules/functions/variables are clearly named to re-flect their func-tion- al-ity. (self-documenting code). | |
| Project Structure (5) | The code consists of a few very large files containing dis-parate elements | The code is comprised of several large files, none of them too large. | The project as a whole is organized in a sensible file structure. | |

| Proficiency (weight) | Meets | | |
|--|---|--|---|
| | Below Expectations | Most Expectations | Exceeds Expectations |
| Code Mod- ular- ity (15) | The code is barely de- com- posed into modules | The code is prop- erly mod- ular and the class- mod- ules/-in- classes ser- have clearly speci- fied roles and responsi- | The inter- module in- ter- ac- tions and the mod- ule ules/-in- classes ser- have clearly speci- fied roles and responsi- bilities. the documentation/comments. |
| Maintain- Func- tional De- com- posi- tion (15) | Each project has frequent code du- pli- ca- tion and func- tions with- out a clear, sin- gu- lar purpose. | Each func- tion has ca- tion is usu- ally avoided by use of func- tional decom- position. avoided. | Each func- tion has a clear, sin- gu- lar purpose. |

| | Meets | | |
|----------------------|--|---|---|
| Proficiency (weight) | Below Expectations | Most Expectations | Exceeds Expectations |
| Maintainability (10) | No ability to write tests. Automated tests. casually insufficient. | Automated tests are present but documentation is insufficient. | Has adequate automated unit testing. code for public functions. |
| Maintainability (5) | Specialists are used directly in the program logic. | Specialists and string literals are named and separated from the program logic. | Specialists are stored in a suitable data structure for mat and separated a-rated from the business logic of the project. |

| Proficiency (weight) | Meets | | |
|-------------------------|--|--|---|
| | Below Expectations | Most Expectations | Exceeds Expectations |
| Code Documentation (10) | The code contains limited or unhelpful comments. | The modules and functions are adequately documented. Comments are commented in comprehensive and follow the comments are presented where needed. | Module and function documentation is outstanding and follows the standard for the given language. |

| | Meets | | |
|------------------------|-----------------------|--|---|
| Proficiency | Below | Most | Exceeds |
| (weight) | Expectations | Expectations | Expectations |
| User Documentation (5) | No user documentation | Includes an installation manual in the user's guide and a very basic user's guide. | Includes an installation manual in the user's guide and a printable form (e.g., webpage). |