PSP Project Plan Summary

|  |  |  |  |
| --- | --- | --- | --- |
| Student | Tom Son | Date | 02/04/2019 ~ 12/04/2019 |
| Program | Number guessing game | Program # |  |
| Instructor | Amit / Luofeng | Language | JavaScript |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Summary** | **Plan** | | |  | **Actual** | | |  | **To Date** | | |
| LOC/Hour | **20** | | |  | **1.19** | | |  |  | | |
| Planned Time | **160** | | |  |  | | |  |  | | |
| Actual Time |  | | |  | **251** | | |  |  | | |
| ~~% Reused~~ |  | | |  |  | | |  |  | | |
| ~~% New Reused~~ |  | | |  |  | | |  |  | | |
|  | | | | | | | | | | | |
|  |  | | |  |  | | |  |  | | |
| **Program Size (LOC)** | **Plan** | | |  | **Actual** | | |  | **To Date** | | |
| Base (B) | 0 | | |  | 0 | | |  |  | | |
|  | (Measured) | | |  | (Measured) | | |  |  | | |
| Deleted (D) | 0 | | |  | 0 | | |  |  | | |
|  | (Estimated) | | |  | (Counted) | | |  |  | | |
| Modified (M) | 0 | | |  | 0 | | |  |  | | |
|  | (Estimated) | | |  | (Counted) | | |  |  | | |
| Added (A) | 40 | | |  | 70 | | |  |  | | |
|  | (A + M - M) | | |  | (T − B + D − R) | | |  |  | | |
| Reused (R) | 78 | | |  | 78 | | |  |  | | |
|  | (Estimated) | | |  | (Counted) | | |  |  | | |
| Added and Modified (A + M) | 40 | | |  | 70 | | |  |  | | |
|  | (Projected) | | |  | (A + M) | | |  |  | | |
| Total Size (T) | 118 | | |  | 148 | | |  |  | | |
|  | (A +M + B - M – D + R) | | |  | (Measured) | | |  |  | | |
| Total New Reusable |  | | |  |  | | |  |  | | |
|  | | | | | | | | | | | |
| **Time in Phase (min.)** | **Plan** |  | **Actual** | | |  | **To Date** | | |  | **To Date %** |
| Planning | 30 |  | 15 | | |  |  | | |  |  |
| Design | 15 |  | 43 | | |  |  | | |  |  |
| Coding | 25 |  | 59 | | |  |  | | |  |  |
| Compile | 0 |  | 0 | | |  |  | | |  |  |
| Test | 40 |  | 121 | | |  |  | | |  |  |
| Postmortem | 50 |  | 13 | | |  |  | | |  |  |
| Total | 160 |  | 251 | | |  |  | | |  |  |
|  | | | | | | | | | | | |
| **Defects Injected** |  |  | **Actual** | | |  | **To Date** | | |  | **To Date %** |
| Planning |  |  |  | | |  |  | | |  |  |
| Design |  |  |  | | |  |  | | |  |  |
| Code |  |  |  | | |  |  | | |  |  |
| Compile |  |  |  | | |  |  | | |  |  |
| Test |  |  |  | | |  |  | | |  |  |
| Total Development |  |  |  | | |  |  | | |  |  |
|  | | | | | | | | | | | |
| **Defects Removed** |  |  | **Actual** | | |  | **To Date** | | |  | **To Date %** |
| Planning |  |  |  | | |  |  | | |  |  |
| Design |  |  |  | | |  |  | | |  |  |
| Code |  |  |  | | |  |  | | |  |  |
| Compile |  |  |  | | |  |  | | |  |  |
| Test |  |  |  | | |  |  | | |  |  |
| Total Development |  |  |  | | |  |  | | |  |  |
| After Development |  |  |  | | |  |  | | |  |  |

**Size Categories**

To track how the size of a program is changed during development, it is important to consider various categories of product LOC. These categories are

**Base.** When an existing product is enhanced, base LOC is the size of the original product version before any modifications are made.

**Added.** The added code is that code written for a new program or added to an existing base program.

**Modified**. The modified LOC is that base code in an existing program that is changed.

**Deleted**. The deleted LOC is that base code in an existing program that is deleted.

**Added and Modified.** When engineers develop software, it takes them much more time to add or modify a LOC than it does to delete or reuse one. Thus, in the PSP, engineers use only the added or modified code to make size and resource estimates. This code is called the Added and Modified LOC.

**Reused.** In the PSP, the reused LOC is the code that is taken from a reuse library and used, without modification, in a new program or program version. Reuse does not count the unmodified base code retained from a prior program version and it does not count any code that is reused with modifications.

**New reusable**. The new reuse measure counts the LOC that an engineer develops and contributes to the reuse library.

**Total Size**. The total LOC is the total size of a program, regardless of the source of the code.