**Assignment Kit #6**

**Assignment description**

Make a plan for writing your next program. Base this plan on your historical data, and use the planning form in Table 10.1. In the future, make and submit a plan for every programming assignment. In that plan, record the original estimate before you start development and then enter the actual sizes and times when you have completed the work. Submit a copy of the program size estimate using the form shown in Table 6.4 and completed as in the example in Table 10.4.

Submit a copy of any Time Recording Log, Weekly Activity Summary, and Job Number Log pages you have not previously submitted. Also, submit the logs and weekly summaries with rates in minutes per LOC and minutes per page, where appropriate. From now until the end of the semester, submit these completed forms for every program you develop for this course.

**Comments on the assignment**

With this assignment, you start making plans for the programs you develop. While these initial plans are simple, they provide a foundation on which to build more sophisticated planning skills. Some of these more sophisticated planning issues will be addressed in the next semester.

**Keep copies of all the forms and data you submit.Table 10.1 Project Plan Summary**

|  |  |  |  |
| --- | --- | --- | --- |
| Student |  | Date |  |
| Program |  | Program # |  |
| Instructor |  | Language |  |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Summary** | **Plan** | | |  | **Actual** | | | |  |
| Minutes/LOC |  | | |  |  | | | |  |
| LOC/Hour |  | | |  |  | | | |  |
|  |  | | |  |  | | | |  |
| **Program Size (LOC):** | **Plan** | | |  | **Actual** | | | |  |
| Total New & Changed |  | | |  |  | | | |  |
|  |  | | |  |  | | | |  |
| Maximum Size |  | | |  |  | | | |  |
| Minimum Size |  | | |  |  | | | |  |
|  |  | | |  |  | | | |  |
| **Time in Phase (min.)** | **Plan** |  | **Actual** | | |  |  |
| Total |  |  |  | | |  |  |
|  |  |  |  | | |  |  |
| Maximum Time |  |  |  | | |  |  |
| Minimum Time |  |  |  | | |  |  |

**Table 10.5 Project Plan Summary Instructions**

|  |  |
| --- | --- |
| **Purpose** | This form holds the estimated and actual project data in a convenient and readily retrievable form. |
| **Header** | Enter the following:  - your name and today's date  - the program name and number  - the instructor's name  - the language you will use to write the program |
| **Summary - Minutes/LOC** | Prior to development  - enter the Minutes/LOC planned for this project.  After development  - Divide the total development time by the actual program size to get the actual Minutes/LOC.  - For example, if the project took 266 minutes and you produced 34 LOC, the Minutes/LOC would be 266/34= 7.82. |
| **Summary - LOC/Hour** | Prior to development  - calculate the LOC per hour planned for this program by dividing 60 by the Plan Minutes/LOC.  After development  - For Actual LOC/Hour, divide 60 by the Actual Minutes/LOC.  - For Actual Minutes/LOC of 7.82, Actual LOC/Hour are 60/7.82 = 6.76. |
| **Program Size (LOC)** | Prior to development, enter under plan:  - the estimated Total, Maximum, and Minimum New & Changed LOC  After Development:  - Count and enter the Actual New & Changed LOC. |
| **Time in Phase - Plan** | - For Total development time, multiply Total New & Changed LOC by Minutes/LOC.  - For example, with 7.82 Minutes/LOC and Total New & Changed LOC of 26 LOC, Total = 26\*7.82 = 203 minutes.  - For Maximum time, multiply the Maximum size by Minutes/LOC.  - For example, with 7.82 Minutes/LOC and Maximum Size of 36 LOC, Maximum Time = 36\*7.82 = 282 minutes.  - For Minimum time, multiply the Minimum size by Minutes/LOC.  - For example, with 7.82 Minutes/LOC and Minimum Size of 18 LOC, Minimum Time = 18\*7.82 = 141 minutes. |
| **Time in Phase - Actual** | - At job completion, enter the actual development time in minutes.  - Get these data from the time log. |

**Table 6.4 Program Size Estimating Form**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Student | |  | | | Date | |  | | |
| Instructor | |  | | | Class | |  | | |
|  | |  | | |  | |  | | |
| **Program** | **LOC** | | **Prior Functions** | **Estimated Functions** | | **Min.** | | **Avg.** | **Max.** |
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| **Estimate** |  | |  |  | |  | |  |  |
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| **Comments:** | | | | | | | | | |
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