Metrics/Measurement

PSP entries

|  |  |  |
| --- | --- | --- |
| Entry Number | Time Taken (Hours) | LOC (Lines of code) |
| 1 | 6.5 | 198 |
| 2 | 2 | 50 |
| 3 | 1.75 | 70 |
| 4 | 10 | 94 |
| 5 | 2 | 97 |
| 6 | 2 | 111 |
| 7 | 10 | 471 |
| 8 | 7 | 385 |
| 9 | 2 | 135 |

Graphing the entries

Graph 1

Log Person-hours = Log a + b \* Log LOC

|  |  |
| --- | --- |
| Log(LOC) | Log(hours) |
| 2.29666519 | 0.812913357 |
| 1.698970004 | 0.301029996 |
| 1.84509804 | 0.243038049 |
| 1.973127854 | 1 |
| 1.986771734 | 0.301029996 |
| 2.045322979 | 0.301029996 |
| 2.673020907 | 1 |
| 2.58546073 | 0.84509804 |
| 2.130333768 | 0.301029996 |

Graph 2

There are a couple one outlier which make it difficult from the entries. It is the entry when the LOC was only 94 after coding for 10 hours. During this period, I was researching code and coding at the same which is why the hours spent is long and the code I write is small. Most of the practice code are did not make the final LOC count because they are removed.

Graph 1 shows that the hours spent and the LOC has a exponential growth rate. This means that the more hours spent on coding will result in more LOC.

By comparing the two graph we can see that LOG graph is able predict the curve of graph 1 to an extent. Graph 2 shows the trendline of the data entered. The trendline can be used to predict future LOC.