SOFTWARE METRICS

Prepared By:
Ikra Chowdhury Nowkshi (BFH1925019F)

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TABLE 1

Software Metrics		Measuring Technique	Applicable Language
Properties Of Software Size	Requirement size	Manual Human Inspection	Java
	Functional Point	Manual Human Inspection	Java

Requirement Size

SRS Requirements and specification documents generally combine text, graphs, and special mathematical diagrams and symbols. These document can consist of a mixture of text and diagrams.

TABLE 2

Measurement	Value
Number of usecase	22
Number of Actor	4
Number of Functional Requirement	10
Number of Non Functional Requirement	21
Number of figures	23
Number of Pages	59
Number of Activity Diagams	22
Number of Tables	22

Functional Point

Function points measure the size of an application system based on the functional view of the system. The size is determined by counting the number of inputs, outputs, queries, internal files and external files in the system and adjusting that total for the functional complexity of the system.

Calculate Functional Point for SPLII Project:

A = External Inputs: 2

B = External Outputs: 3

C = External Inquiries: 4

D = External Files: 1

E = Internal Files: 1

we can compute the UFC by multiplying the number of items in a variety by the weight of the variety:

$$UFC = \sum (\text{Number of items of variety}_{(i)} * \text{weight}_{(j)})$$

$$UFC = 4A + 5B + 4C + 10D + 7E$$

$$UFC = 4*2 + 5*3 + 4*4 + 10*1 + 7*1$$

$$UFC = 56$$

Item	Simple	Weighting Factor Average	Complex
External Inputs	3	4	6
External Outputs	4	5	7
External Inquiries	3	4	6
External Files	7	10	15
Internal Files	5	7	10

The following formula combines the 14 ratings into a final technical complexity factor:

$$TCF = 65 + 0.01 * \sum F_i$$

To continue our FP computation for the Project Ovijog, we evaluate the technical complexity factor. It seems reasonable to assume that F1, F5, F7, F9, and F13 are 0, that F2, F3, F6, F11, F12 and F14 are 3, and that F4, F8 and F10 are 4. Thus, we calculate the TCF as

$$TCF = 0.65 + 0.01(18 + 12)$$

$$TCF = 0.65 + 0.01 * 30$$

$$TCF = 0.95$$

Since UFC is 56, then

$$FP = 97 \times 0.95 = 53.2$$