## **CP5805 – Assessment 2A: Week 1 reflective journal**

*main()*

|  |  |  |
| --- | --- | --- |
| *Input* | *Processing* | *Output* |
|  | *house\_cost land\_size\_m2*  *land\_cost\_per\_m2*  *total\_land\_cost* | *package\_cost* |

*get\_valid\_value()*

|  |  |  |
| --- | --- | --- |
| *Input* | *Processing* | *Output* |
| *prompt* |  | *Value* |

Part 1:

The program described by the provided IPO charts uses two functions, *main()* and *get\_valid\_value()* to calculate and store the cost of a housing and land package. *Main()* calls the second function, *get\_valid\_value()* four times (once for each variable) and uses the values of the four variables to calculate and store a value for the variable *package\_cost*. When *main()* calls *get\_valid\_value()*, this second function prompts the user to enter a value for one of the four variables *house\_cost*, *land\_size\_m2*, *land\_cost\_per\_m2*, and *total\_land\_cost*. This value is returned and then passed back to *main()* for processing.

Part 2:

There are two main reasons as to why this program may have been separated into two functions. The first is for error-checking purposes. For example, the program designer could add extra code to output an error message when *get\_valid\_value()* is run if the user enters an invalid value such as a negative number. The second reason is to enable easier alteration of a specific part of the program, such as if the source of the values changed or the calculation for *package\_cost* required modification.