

CP5805 – Assessment 2A: Week 1 reflective journal

main()

<i>Input</i>	<i>Processing</i>	<i>Output</i>
	<i>house_cost</i> <i>land_size_m2</i> <i>land_cost_per_m2</i> <i>total_land_cost</i>	<i>package_cost</i>

get_valid_value()

<i>Input</i>	<i>Processing</i>	<i>Output</i>
<i>prompt</i>		<i>Value</i>

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.