

Test Case (PART 1)	Purpose	Result
1. Does the program run?	The purpose of this test is to check it is program ready for the user to use it.	Yes, program does run without any problems.
2. Does the code have declarations? If there are, what are they and is it shown in the result correctly?	The purpose of this test is that we haven't accidentally mixing different variables together. For example, we mixed string variables with integer variables. Also,	Yes, code has declared with three variables. They are fix stock code with string, quantity in stock with integer and stock price with double. Also, yes after testing this code it show result correctly.
3. Does the code have constructor methods? Do the methods show appropriately in the code?	The purpose of this test, we want to see will it repeat itself as we extend lots of classes. Essentially, we don't need to input any important code.	Yes, in this code have constructor method and as we test this that show in the result. Because it shows us the stock price is 99.99, quantity of stock is 10 and stock code is w101.
4. With the 'getStockCode' method, does it return stock code /W101?	The purpose of this test is that we need to make sure that the user gets right stock code every time.	Yes, when we test this that in the result section. It shows us that the stock code is w101 for a stock item.
5. With 'getStockCode' method if stock code changes. Will it show the correct result Stock Code?	The purpose of this test is that if the user need to change the stock code and this able for the user to change the stock code anytime. It shouldn't be any problem for the program to recode this.	Yes, as we test this that we have tried lots of different stock code with mixtures of numbers and letters. They have all show result correctly.
6. With VAT method, does the price (£99.99) calculated correctly with and without VAT?	The purpose of this is we want to make the user easy and convenient. So, having the price correctly every time is very important for us.	Yes, when we test this it shows clearly that price without VAT is £99.99 and with VAT is £117.48825.
7. With VAT method, if the price (£119) changes. Does the price calculate correctly with and without VAT?	The purpose of this is to recheck that VAT method can calculate correctly every time. This is important for the user who have lots of stock items with lots of different prices.	Yes, we have test this and it shows that without VAT is £119.00 and with VAT is £139.825.
8. If VAT percentage change to 20%. Does the price show correctly calculate without and with VAT?	The purpose of this test is that the user can change VAT percentage if they want to. Also, this should have calculated correctly with new percentage rate.	Yes, we have change the VAT percentage from 17.5% to 20%. We use the original £99.99 price tag and without VAT is £99.99 and with VAT is £119.988.
9. With 'getStockName' method, does it return appropriate strings such as 'unknown stock name' and 'unknown stock descriptions'?	The purpose of this test is that we need to see strings in appropriate area in the result section.	Yes, as we test it when we see that strings like unknown stock name and unknown stock description are in appropriate places in the result section.
10. By adding stock, there will be error message if the value less than 1. Does it show error message?	The purpose of this is to let the user know if they type in less than 1 item has been added to the stock. So, this is just a reminder that the user hasn't change anything with stock level and will show the error message.	Yes, it did show the error message. By doing this we type in 0 to add the stock and shows an error message.

11. By adding the value 150 to the stock level. Does it show the error message?	The purpose of this test is limit the user for adding stocks to the stock levels. Also, it shows us that it works that if the user types the number too big for adding stocks.	Yes, it did show the error messages and we have tried to add 150 stocks items in the program, but it shows an error message at the end.
12. By adding the value 80 to the stock level. Does it show right result?	The purpose of this test we have been tasked to limit 100 stock items can be add one at a time. So, by testing 80 stocks into the program, which we can see if the stocks have been added to the stock levels.	Yes, it does shows right result. By adding 80 stock items into stocks levels. Currently there is 10 stocks items and now it shows 90 stocks items altogether.
13. With sell stock level, If the stock number is less than 1. Then it shows error message. Does the error message is show in the result?	The purpose of this test is that if the user types in 0 in 'how many stocks has been sold?'. Then it shows an error message and letting the user know that they haven't sold any stock items.	Yes, it does show error messages when we type in 0 in sell stock section.
14. If the stock number more than level of stock. Does it show error message?	The purpose of this test is not to confuse the user, because its helps user how many stock items they are and helps the user how much stock items are short are needed.	Yes, it does show the error message and by doing this we use the sell stock code. Which we type in 20 stock sold but shows that only 10 stocks left.
15. If stock level decreases by selling 9 items. Does the stock level reduce?	The purpose of this test is to keep up to date with the stock levels.	Yes, the stock levels have decrease from 10 stock items to 1 stock item.
16. If the stock level decreases by selling 5 items. Does the stock level reduce?	The purpose of this test is to check again that program run properly and showing right stock levels every time.	Yes, the stocks levels have decreased from 10 stock items to 5 stock items.
17. By using 'toString()' method, does it returns right strings when the result shown?	The purpose of this test is to specific strings have to show the right lines in the result section.	Yes, it shows that the strings going to right lines of codes in the result section.
18. Has the methods obtain stock name, quantity and prices that shows in the result?	The purpose of this test is to see that stock name, quantity of stock and prices are showing the right places in the result section.	Yes, it shows the right places in the result section.

<b>Test Case (PART 2)</b>	<b>Purpose</b>	<b>Result</b>
1. Does this program have constructors?	The purpose of this is to save time for inputting the variables every method in the code. Also, it saves us for making lots of mistakes by repeating the variables as well.	Yes, the program has constructors and they are fix stock code is NS101, quantity in stock is 10 and stock item price is 99.99.
2. Is the constructors uses the super for initialising the instance variables?	The purpose of this test is that we can extend from main class which is stock item class. So, it can help us to save time to rewrite the code again.	Yes, there is super constructors and constructors are newNavStockCode, newNavQuantityinStock and newNewStockItemPrice. They are make up as super constructors.

3. Does NavSys class have getStockName() method override and return "Navigation System"?	The purpose of this is originally from main class stock item shows that the stock name method returns unknown stock name. Since we have created NavSys as a subclass which we can override getStockName() method which gives a specific implementation from stock item main class.	Yes, stock name methods has override from stock item main class and in the result it shows navigation system.
4. Does NavSys class have getStockDescription() method override and return "GeoVision Sat Nav"?	The purpose of this is originally from main class stock item that the stock description methods return unknown stock description. Since we have created NavSys as a subclass which can override getStockDescription() method which give us a specific implementation from stock item main class.	Yes, NavSys class have stock description method and it has override from original stock items main class. In the result it shows geo vision sat nav.
5. Does toString() method override by using concept of super?	The purpose of this is that we can override the constructors that we don't need to repeat the inputs of the constructors from stock item main class. Also, by using the super in this method is good for us because can used all the methods from main class as well.	Yes, to string method have override from stock item main class and method have use super that shown in the result.
6. Can the user add some navigation system stocks to the program?	The purpose of this is that the user can add navigation system stocks into the program because the user needs it to check the stock level and how many navigation system stocks in the program.	Yes, as we test this we can add more stocks in to the program. By doing this we add 10 more stocks and now they are 20 stocks items now.
7. Can the program decrease the stock level after selling some navigation systems?	The purpose of this is that the user can sell navigation systems stocks and maintain checking how many stocks items they are left just by looking the stock level.	Yes, the program decreases after selling couple of stock. By doing this we input 2 stocks that been sold and now it shows 18 stocks altogether now.
8. Can the user change the prices of the navigation systems in the program?	The purpose of this is that the user has ability to change the prices of the stock items in the program.	Yes, the user can change the prices of stocks. We change from 99.99 to 119.99 and it shown in the result.
9. Is NavSys is the sub class of Stock Item main class?	The purpose of this is that we can extend sub class from stock item main class and able us to extend more sub class for other products like brakes pad.	Yes, NavSys is the sub class of the stock item main class. It shows on top of the program and shown 'public class NavSys extends StockItem'.
10. Does the program calculate the price properly with and without VAT percentage?	The purpose of this is the user doesn't need to worry about calculating the prices with VAT and without VAT percentage.	Yes, the program does calculate the price (99.99) properly with VAT is 117.48825 and without VAT is 99.99.

Test Case (PART 3)	Purpose	Result
1. Does the program have method called, 'itemInstance' and returns 'printing item stock information:'?	The purpose of having itemInstance method is to print out repeat summaries of every item in stock and in this method its need to have printing item stock information because it shows the user it is a start for showing rest of the result.	Yes, in the result that shows printing item stock information.
2. In the 'itemInstance' method, does it have added stock function and print out that it has increase more units?	The purpose of this is that we can add more stocks from the system and let the user know many stocks have increase.	Yes, in the result we have tried to increase 7 more units and you can see in the brake pad section. It shows it has increase 7 units and shows total units in stock is 27. Originally stocks units start from 20.
3. In the 'itemInstance' method, does it have sell stock function and print out that it sold some units?	The purpose of this is that we can sell stocks from the system and let the user knows that how many stocks been sold.	Yes, in the result we have test it and sold 3 stock units. You can see in the exhaust section that 3 stock items been sold and its shows there are total 14 units lefts.
4. In the 'itemInstance' method, does it have set new price function and print out it set a new price for per units?	The purpose of this is that the user can see what happens if they set differently price set and can compare the prices between current price and new price.	Yes, in the result section we have set a new price set at 9.99 and you can see in navigation system section that the price set 9.99 without VAT and with VAT is 11.73825.
5. Does the testpolymorphism class have an array method and how does it start it?	The purpose of having the array method is good efficient way to store data structure and it can be implement other data structures. Also, array can be use with a single name by showing lots of different data items.	Yes, in the testpolymorphism class have array method and start with by creating StockItem[] s = new StockItem[4];.
6. Does the array method have loop function?	The purpose of this is that can be executed for the properties in the program.	Yes, there is loop function in the program.
7. Has some items have been added to the array function?	The purpose of this is that when the program performed it can keep looping every item until all the items been tested.	Yes, there are some items have been added to the array function. They are exhaust, tyre and navigation system.
8. In the array method, does it have a loop function?	The purpose of this is that we can keep repeat part of code lots of times until the requirement have met.	Yes, there is a loop function in the program under the array method.
9. In the array method, does loop function prints out start number loop like start 1 loop?	The purpose of this is that we can keep repeat same code again and again.	Yes, the loop function does print put start 1 loop, start 2 loops, and start 3 loops.
10. In the array method, does loop function prints out end number loop like end 1 loop?	The purpose of this is that it shows after testing some function it will shows the end loop and having the loop because we use same test for lots of items. This helps us to	Yes, there is a loop function and it does print out end 1 loop end 2 loop end 3 loop.

	see that the test ended for one specific part.	
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