Inf 2C- SE Assignment 3

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Test Report

All Junit tests have passed, a run-down of all tests is presented below:

test_command_line	passed
test_start_ccs	passed
test_start_ccsBelow40	passed
test_start_ccsBelow40andBrakeOn	passed
test_start_ccsButBrakeOn	passed
test_start_accelerating	passed
test_start_acceleratingWithoutCCSOn	passed
test_stop_ccs_ByBrake	passed
stop_ccs_ByButton	passed
test_stop_accelerating_ByBrake	passed
test_stop_accelerating_ByButton	passed
test_resume	passed
test_resumeButBrakeOn	passed
test_resumeButLess40	passed
test_engineoff	passed
unexpectedTerrain	passed
test_resumeWithoutStored	passed

All 17 Junit tests passed, a statement coverage report on these 17 tests can be seen on page four.

Traceability Matrix

	test_start_ccs	Test_stop _ccs_ByBrake	Test_stop _ccs_ByButto n	Test_stop_ Accelerating _ByBrake	Test_stop Accelerating_ _ByButton	Test_ Resume	Test_ Start_ Accelerating
Start Cruising-3. 1	x						
Stop Cruising (Button)-3. 2			x				
Stop Cruising (Pedal)-3.3		x					
Start Acceleratin g (Button) -3.4							x
Stop Acceleratin g (Button) -3.5					x		
Stop Acceleratin g (Pedal) -3.6				x			
Resume – 3.7						x	

A larger traceability matrices could be created with lower level requirements as well, including such requirements like “If the CCS button is pressed whilst car speed greater than 40mph but brake on” however, these being included would clutter the matrix making it less comprehensible and simple, these lower level requirements are also tedious and trivially associated with the descriptive test names, I.e our example traces to “test_start_ccsButBrakeOn”

As such we have only included the higher level requirements into the traceability matrix for clarity.

Statement Coverage Report

SessionsBasicTests (17-Nov-2014 23:13:35) > INF2c > src > default > CruiseControlSystem

CruiseControlSystem

Element	Missed Instructions	Cov.	Missed Branches	Cov.	Missed	Cxty	Missed	Lines	Missed	Methods
pulse(Car)		100%		100%	0	17	0	37	0	1
CruiseControlSystem()		100%		n/a	0	1	0	3	0	1
Total	0 of 189	100%	0 of 32	100%	0	18	0	40	0	2

Created with JaCoCo 0.7.2.201409121644BasicTests (17-Nov-2014 23:13:35)

With our 17 tests we have achieved 100% statement coverage, missing 0 instruction lines, as such we have therefore also achieve*d complete* function coverage, branch coverage and condition coverage.