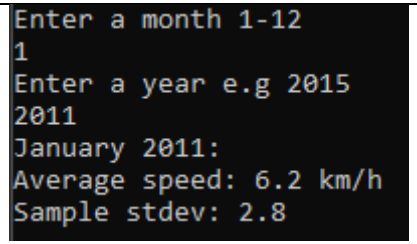
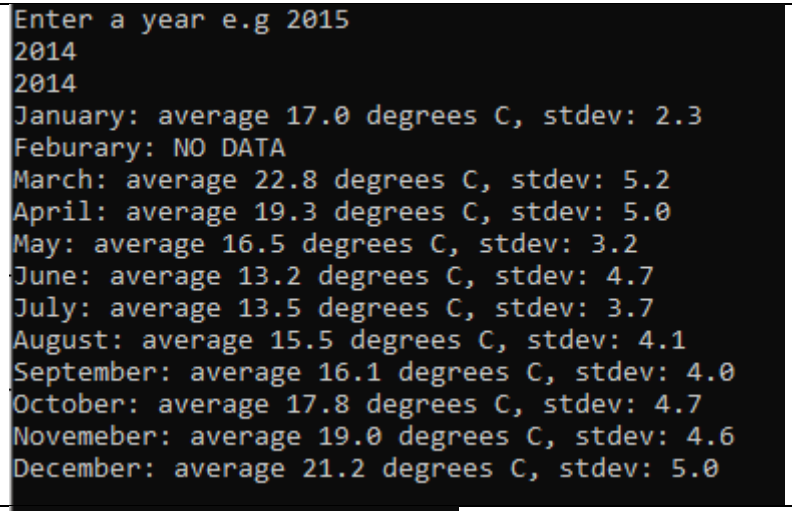
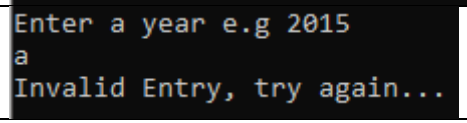
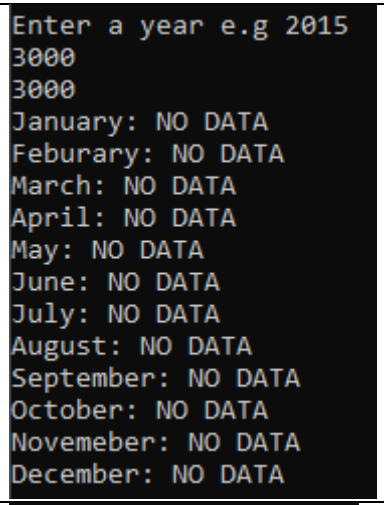
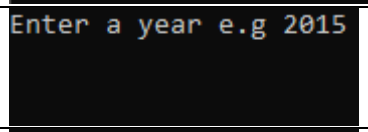
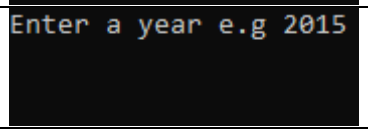
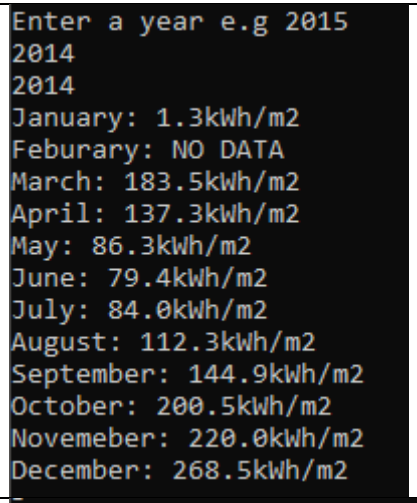
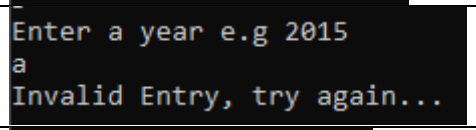
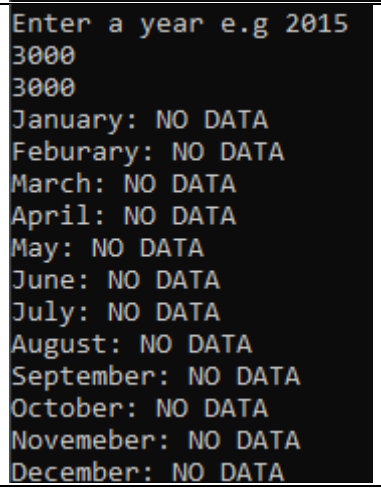
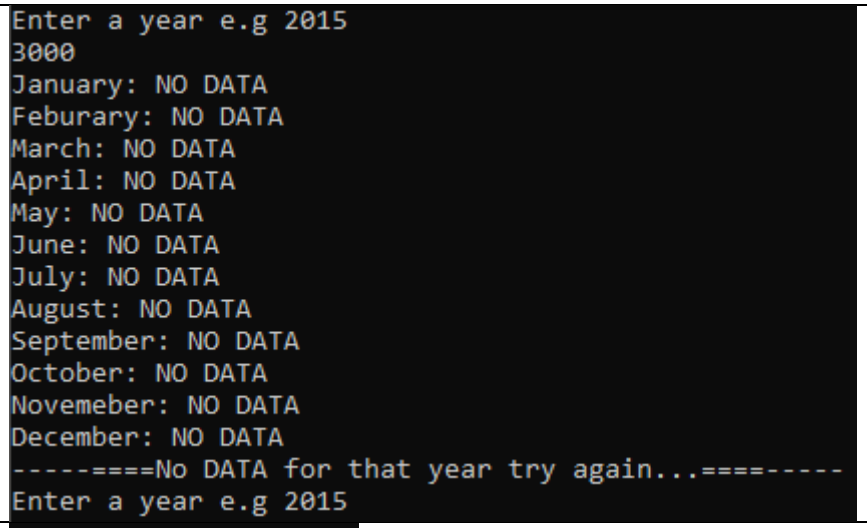
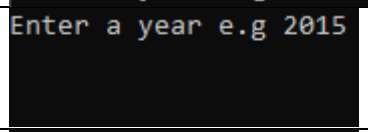
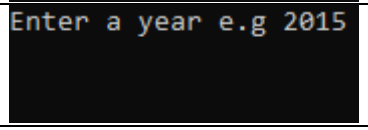
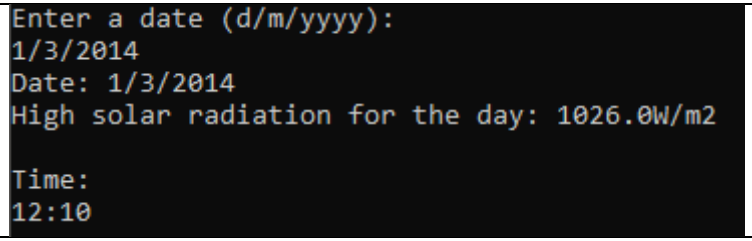
ID	Test description	Actual data for this test	Expected output	Actual Result	Pass/Fail
OPTION 1					
1	Entering valid month	Month = 1	Enter a year	Enter a month 1-12 1 Enter a year e.g 2015	PASS
2	Entering month with leading zero	Month = 01	Enter a year	Enter a month 1-12 1 Enter a year e.g 2015	PASS
3	Entering date with no data	Month = 1, year = 2020	"No Data.."	Enter a month 1-12 1 Enter a year e.g 2015 2020 January: NO DATA	PASS
4	Entering invalid month	Month = a	"Invalid option try again"	Enter a month 1-12 a Invalid Entry, try again...	PASS
5	Entering invalid year	Year = a	"Invalid Option try again"	Enter a month 1-12 03 Enter a year e.g 2015 a Invalid Entry, try again...	PASS
6	Entering valid date	Month = 3, Year = 2014	"March 2014 Average speed: 5.6 km/h Sample stdev: 3.0"	Enter a month 1-12 03 Enter a year e.g 2015 2014 March 2014: Average speed: 5.6 km/h Sample stdev: 3.0	PASS

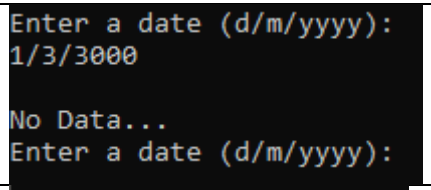
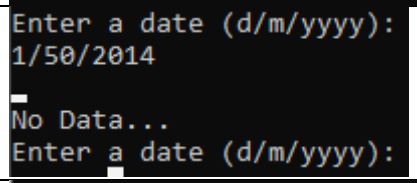
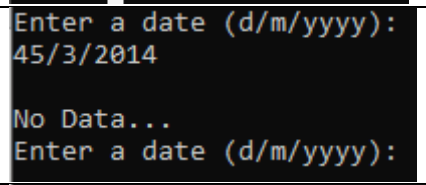
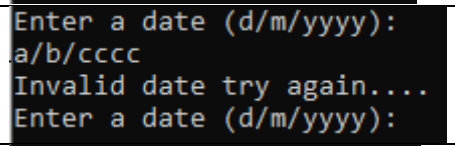
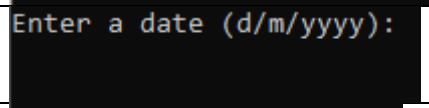
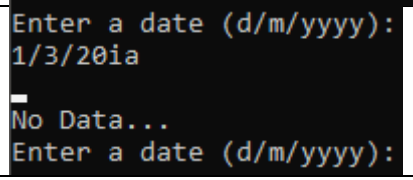
7	Entering date from another file	Month = 1 Year = 2011	“January 2011: Average speed 6.2km/h Sample stdev: 2.8”		
Option 2					
8	Entering valid year	Year = 2014	Average temperatures and stdev for each month. No date is there is no data for a month		PASS
9	Entering invalid year	Year = a	“Invalid option try again”		PASS

10	Entering year no in data file	Year = 3000	No data for each month as year is not located in data file.		PASS
11	Entering space	Year = “ ”	No input		PASS
12	Enter nothing	Year = “\n”	No input		PASS
Option 3					

13	Entering valid year	Year = 2014	Total solar radiation for each month. No date is there is no data for a month		PASS
14	Entering invalid year	Year = a	“Invalid option try again”		PASS
15	Entering year no in data file	Year = 3000	No data for each month as year is not located in data file.		PASS

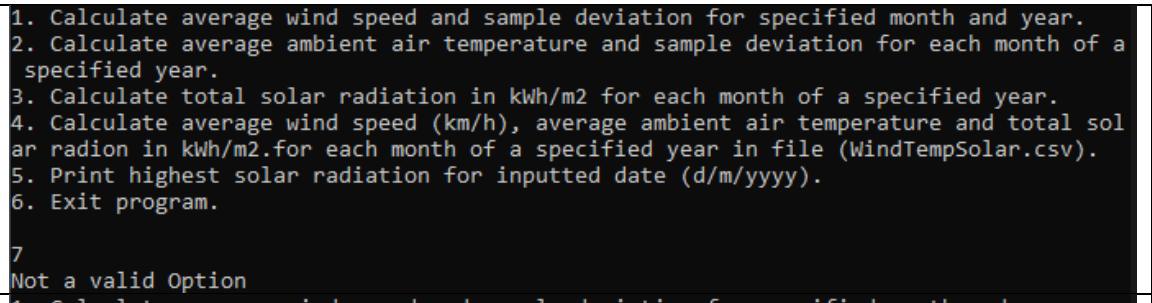
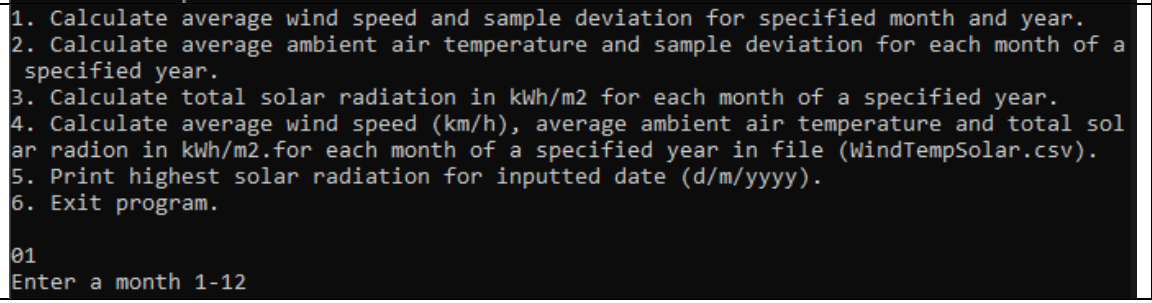
16	Entering space	Year = " "	No input	Enter a year e.g 2015	PASS
17	Enter nothing	Year = "\n"	No input	Enter a year e.g 2015	PASS
Option 4					
18	Entering valid year	Year = 2014	"data logged in external file"	Enter a year e.g 2015 2014 Feburary: NO DATA Logged in file (WindTempSolar.csv) WindTempSolar.csv 2014 January,2.8(2.1),17.0(2.3),1.3 March,5.6(3.0),22.8(5.2),183.5 April,3.8(2.6),19.3(5.0),137.3 May,4.7(3.1),16.5(3.2),86.3 June,1.3(2.3),13.2(4.7),79.4 July,3.5(3.1),13.5(3.7),84.0 August,5.3(2.9),15.5(4.1),112.3 September,5.7(3.4),16.1(4.0),144.9 October,5.2(2.5),17.8(4.7),200.5 Novemeber,5.6(2.5),19.0(4.6),220.0 December,6.0(2.3),21.2(5.0),268.5	PASS
19	Entering invalid year	Year = a	"Invalid option try again"	Enter a year e.g 2015 a Invalid Entry, try again...	PASS

20	Entering year no in data file	Year = 3000	“No data for that year try again”		PASS
21	Entering space	Year = “ ”	No input		PASS
22	Enter nothing	Year = “\n”	No input		PASS
Option 5					
23	Enter a valid date	1/3/2014	Solar radiation max = 1026 Time: 12:10		PASS

24	Entering year out of range	1/3/3000	“No data”		PASS
25	Entering month out of range	1/50/2014	“No data”		PASS
26	Entering day out of range	45/3/2014	“No data”		PASS
27	Entering invalid date	a/b/cccc	Invalid date		PASS
28	Blank date	“ ”	No Change		PASS
29	Entering invalid date	1/3/20ia	“No data”		PASS
Menu Selection					

30	Enter option 1	1	Option 1 executed	1. Calculate average wind speed and sample deviation for specified month and year. 2. Calculate average ambient air temperature and sample deviation for each month of a specified year. 3. Calculate total solar radiation in kWh/m2 for each month of a specified year. 4. Calculate average wind speed (km/h), average ambient air temperature and total solar radion in kWh/m2.for each month of a specified year in file (WindTempSolar.csv). 5. Print highest solar radiation for inputted date (d/m/yyyy). 6. Exit program. 1 Enter a month 1-12	PASS
31	Enter option 2	2	Option 2 executed	1. Calculate average wind speed and sample deviation for specified month and year. 2. Calculate average ambient air temperature and sample deviation for each month of a specified year. 3. Calculate total solar radiation in kWh/m2 for each month of a specified year. 4. Calculate average wind speed (km/h), average ambient air temperature and total solar radion in kWh/m2.for each month of a specified year in file (WindTempSolar.csv). 5. Print highest solar radiation for inputted date (d/m/yyyy). 6. Exit program. 2 Enter a year e.g 2015	PASS
32	Enter option 3	3	Option 3 executed	1. Calculate average wind speed and sample deviation for specified month and year. 2. Calculate average ambient air temperature and sample deviation for each month of a specified year. 3. Calculate total solar radiation in kWh/m2 for each month of a specified year. 4. Calculate average wind speed (km/h), average ambient air temperature and total solar radion in kWh/m2.for each month of a specified year in file (WindTempSolar.csv). 5. Print highest solar radiation for inputted date (d/m/yyyy). 6. Exit program. 3 Enter a year e.g 2015	PASS

33	Enter option 4	4	Option 4 executed	1. Calculate average wind speed and sample deviation for specified month and year. 2. Calculate average ambient air temperature and sample deviation for each month of a specified year. 3. Calculate total solar radiation in kWh/m2 for each month of a specified year. 4. Calculate average wind speed (km/h), average ambient air temperature and total solar radion in kWh/m2.for each month of a specified year in file (WindTempSolar.csv). 5. Print highest solar radiation for inputted date (d/m/yyyy). 6. Exit program. 4 Enter a year e.g 2015	PASS
34	Enter option 5	5	Option 5 executed	1. Calculate average wind speed and sample deviation for specified month and year. 2. Calculate average ambient air temperature and sample deviation for each month of a specified year. 3. Calculate total solar radiation in kWh/m2 for each month of a specified year. 4. Calculate average wind speed (km/h), average ambient air temperature and total solar radion in kWh/m2.for each month of a specified year in file (WindTempSolar.csv). 5. Print highest solar radiation for inputted date (d/m/yyyy). 6. Exit program. 5 Enter a date (d/m/yyyy):	PASS
35	Enter option 6	6	Program exited	Program Exits	PASS
36	Enter invalid option	a	“invalid option try again”	1. Calculate average wind speed and sample deviation for specified month and year. 2. Calculate average ambient air temperature and sample deviation for each month of a specified year. 3. Calculate total solar radiation in kWh/m2 for each month of a specified year. 4. Calculate average wind speed (km/h), average ambient air temperature and total solar radion in kWh/m2.for each month of a specified year in file (WindTempSolar.csv). 5. Print highest solar radiation for inputted date (d/m/yyyy). 6. Exit program. a Invalid Entry, try again...	PASS

37	Enter option that is not available	7	“Not a valid option”		PASS
38	Enter option with leading zero	01	Execute option 1		PASS