## 20190021\_20190042\_20190224

### TEST CASE REPORT

GENERAL INFORMATION				
Test Date:	04/27/2023	Test Case Number:	1	
Test Case Description:	Default Constructor initialize quarter and year with values of now			
Results:	Passed Failed			
	TES	T		
Input Specifications:	Attributes of the year now 2023, quarter now 2			
Procedural Steps:	Using default constructor and test each value with the right value now, test equality of (2023, getYear()), and (2, getQuarter()).			
Expected Results of Case:	Ensure that the Default constructor work well and getYear, getQuarter work as expected			
ACTUAL RESULTS				
Output Specifications and comments :	Test Passed, Output of Year is 2023 as expect	ed, Output of Quarter is 2 as expe	cted.	

GENERAL INFORMATION				
Test Date:	04/27/2023	Test Case Number:	2	
Test Case Description:	Constructor with Date object to can get year a	and quarter from it		
Results:	Passed Failed			
	TEST			
Input Specifications:	Attributes of the year now 2023, quarter now 2			
Procedural Steps:	Using default Date object as other constructors depricated and test each value with the right value now, test equality of (2023, getYear()) and (2, getQuarter()).			
Expected Results of Case:	Ensure that the constructor with date object work well and getYear, getQuarter work as expected			
ACTUAL RESULTS				
Output Specifications and comments :	Test Passed, Output of Year is 2023 as expected, Output of Quarter is 2 as expected.			

	GENERAL INFORMATION				
Test Date:	04/27/2023	Test Case Number:	3		
Test Case Description:	Constructor with quarter, Year				
Results:	Passed Failed				
	with expected= illegalArgumentException				
	TES	ST .			
Input Specifications:	Attributes of the year now 20000, quarter 3				
Procedural Steps:	Using default Year object with out of range 20000 , quarter 3				
Expected Results of Case:	illegalArgumentException that 20000 is out of range (1900,9999)				
	ACTUAL RESULTS				
Output	Test Passed with expected=illegalArgumentE	xception.			
Specifications and comments :	Insufficient Documented function that can't to	ell what will function throw when	take input out of range.		

GENERAL INFORMATION				
Test Date:	04/27/2023	Test Case Number:	4	
Test Case Description:	Constructor with quarter, year object			
Results:	Passed Failed			
	TES	т		
Input Specifications:	Attributes of the year =2023, quarter = 5 out of	of range(1,4)		
Procedural Steps:	Using year object with 2023 and integer quarter = 5.			
Expected Results of Case:	Expect to take quarter 5 as the maximum number to be 4 but it take 5 as it and store in quarter			
	ACTUAL RESULTS			
Output Specifications and comments :	Test Failed, Output of Year is 2023 as expected, Output of Quarter is 5 but this out of range that documented. Insufficient Documentation when pass quarter value out of the range.			

GENERAL INFORMATION				
Test Date:	04/27/2023	Test Case Number:	5	
Test Case Description:	Constructor with Date object and TimeZone of	bject		
Results:	Passed Failed			
	TEST			
Input Specifications:	Default Date , Default TimeZone			
Procedural Steps:	Using default Date object, TimeZone object and assert equal to time now 2023 and quarter 2.			
Expected Results of Case:	Year = 2023, quarter=2			
ACTUAL RESULTS				
Output Specifications and comments :	Test Passed, Output of Year is 2023 as expected, Output of Quarter is 2 as expected.			

GENERAL INFORMATION				
Test Date:	04/27/2023	Test Case Number:	6	
Test Case Description:	CompareTo			
Results:	Passed Failed			
	TES	ST .		
Input	Quarter(1,1998)			
Specifications:	Quarter(4,1999)			
Procedural Steps:	Create two quarters with different times to test negativity that one come before other.			
Expected Results of Case:	-1 that first quarter come before second quarter			
ACTUAL RESULTS				
Output Specifications and comments :	Test Passed, get -1 as expected.			

GENERAL INFORMATION			
Test Date:	04/27/2023	Test Case Number:	7
Test Case Description:	Equals		
Results:	Passed Failed		
	TES	T	
Input Specifications:	Quarter(4,1900) Quarter(4,1900)		
Procedural Steps:	Passing two quarters object with same Time period to test happy scenario		
Expected Results of Case:	True as expected		
ACTUAL RESULTS			
Output Specifications and comments :	Test Passed, True.		

GENERAL INFORMATION			
Test Date:	04/27/2023	Test Case Number:	8
Test Case Description:	Equals		
Results:	Passed Failed		
	TES	T	
Input Specifications:	Quarter(1,1900) Calender with same time period		
Procedural Steps:	Create quarter object and calender object with same time period.		
Expected Results of Case:	Should be equal, Assert True		
ACTUAL RESULTS			
Output Specifications and comments :	Test Failed, AssertionError . Insufficient in document what is arbitary obje	cts to pass to the function	

GENERAL INFORMATION				
Test Date:	04/27/2023	Test Case Number:	9	
Test Case Description:	GetFirstMilliSecond			
Results:	Passed Failed			
	TES	T		
Input Specifications:	Quarter object Calender object			
Procedural Steps:	Set time zone in calender, calculate actual First millisecond, expected first millisecond.			
Expected Results of Case:	Equals as expected			
ACTUAL RESULTS				
Output Specifications and comments :	Test Passed, True as expected.			

GENERAL INFORMATION			
Test Date:	04/27/2023	Test Case Number:	10
Test Case Description:	GetLastMilliSecond		
Results:	Passed Failed		
	TES	T	
Input Specifications:	Quarter object Calender object		
Procedural Steps:	Set time zone in calender, calculate actual Last millisecond, expected Last millisecond.		
Expected Results of Case:	Equals as expected		
ACTUAL RESULTS			
Output Specifications and comments :	Test Passed, True as expected.		

GENERAL INFORMATION				
Test Date:	04/27/2023	Test Case Number:	11	
Test Case Description:	parseQuarter			
Results:	Passed Failed			
	TES	T		
Input Specifications:	"2019-Q3", "2019 Q3", "2019/Q3", "2019,Q3" "Q3-2019", "Q3 2019", "Q3/2019", "Q3,2019"			
Procedural Steps:	Test each string format to parse.			
Expected	Get value of quarter , value of year.			
Results of Case:	Get values as expected			
ACTUAL RESULTS				
Output Specifications and comments :	Test Passed, quarter=3, year=2019.			

GENERAL INFORMATION			
Test Date:	04/27/2023	Test Case Number:	12
Test Case Description:	parseQuarter		
Results:	Passed Failed		
	TES	T	
Input Specifications:	"2019_Q3", "Q3_2019", "Q3", "2019", "Q	2019"	
Procedural Steps:	Test different format of strings		
Expected Results of Case:	Get Exceptions not documented		
ACTUAL RESULTS			
Output Specifications and comments :	NumberFormatException, TimePeriodFormat Insufficient Info in the documentation.	Exception	

GENERAL INFORMATION				
Test Date:	04/27/2023	Test Case Number:	13	
Test Case Description:	getQuarter			
Results:	Passed Failed			
	TES	ST		
Input Specifications:	1,2,3,4			
Procedural Steps:	Quarter with any integer within the range.			
Expected Results of Case:	Work as expected and get the right value.			
ACTUAL RESULTS				
Output Passed, True as expected.  Specifications and comments:				

GENERAL INFORMATION				
Test Date:	04/27/2023	Test Case Number:	14	
Test Case Description:	getQuarter			
Results:	Passed Failed			
	TES	T		
Input Specifications:	-1,7			
Procedural Steps:	Quarter with any integer out of the range.			
Expected	Can't handle this case and take value as it.			
Results of Case:	Expect to take -1 as 1, 7 as 4 but that not actual do.			
ACTUAL RESULTS				
Output Specifications and comments :				

GENERAL INFORMATION				
Test Date:	04/27/2023	Test Case Number:	15	
Test Case Description:	getYear			
Results:	Passed Failed			
	TEST			
Input Specifications:	2027			
Procedural Steps:	Create quarter object with year 2027			
Expected Results of Case:	2027 as expected.			
ACTUAL RESULTS				
Output Specifications and comments :	Passed, True as expected.  Works well with the values within the range.			

GENERAL INFORMATION				
Test Date:	04/27/2023	Test Case Number:	16	
Test Case Description:	getYear			
Results:	Passed Failed			
	expected=illegalArgumentException			
	TES	T		
Input Specifications:	1000, 20000			
Procedural Steps:	Create quarter object with year 1000 out of the range			
Expected	Expect to take 1000 as a min value 1900, 20000 as max value 9999 or document how to handle this case.			
Results of Case:	but it throws exception not documented.			
ACTUAL RESULTS				
Output	Passed, with expected=illegalArgumentExcep	tion.		
Specifications and comments :	Insufficient Info in document that throw exce	ption.		

GENERAL INFORMATION			
Test Date:	04/27/2023	Test Case Number:	17
Test Case Description:	previous		
Results:	Passed Failed		
	TES	T	
Input Specifications:	Quarter(1, 1900)		
Procedural Steps:	Create quarter object with quarter=1, year=1900		
Expected Results of Case:	Null.		
ACTUAL RESULTS			
Output Specifications and comments :  Passed, Null as expected.			

GENERAL INFORMATION			
Test Date:	04/27/2023	Test Case Number:	18
Test Case Description:	previous		
Results:	Passed Failed		
	TES	T	
Input Specifications:	Quarter(7, 2021)		
Procedural Steps:	Create quarter object with quarter=7, year=20	21	
Expected Results of Case:	Q3/2021 or document how to handle this case.		
ACTUAL RESULTS			
Output Specifications and comments :	Failed . Output: <q6 2021=""></q6>		

GENERAL INFORMATION				
Test Date:	04/27/2023	Test Case Number:	19	
Test Case Description:	next			
Results:	Passed Failed			
	TES	T		
Input Specifications:	Quarter(2, 2023) as default			
Procedural Steps:	Create quarter object with default constructor			
Expected Results of Case:	(3, 2023).			
ACTUAL RESULTS				
Output Passed, True as expected.  Specifications and comments:				

GENERAL INFORMATION				
Test Date:	04/27/2023	Test Case Number:	20	
Test Case Description:	next			
Results:	Passed Failed			
	TES	T		
Input Specifications:	Quarter(-3, 2027)			
Procedural Steps:	Create quarter object with parameterized constructor quarter=-3, year=2027			
Expected Results of Case:	(2, 2027). or document how to handle this case.			
	ACTUAL RESULTS			
Output Specifications and comments :	pecifications Output: <0-2/2027>			

GENERAL INFORMATION				
Test Date:	04/27/2023	Test Case Number:	21	
Test Case Description:	getSerialIndex			
Results:	Passed Failed			
	TEST			
Input Specifications:	Quarter() as default			
Procedural Steps:	Create quarter object with default constructor, calculate actual serial index by number of passed quarters with equation : Year*4 + quarter			
Expected Results of Case:	True (actualSerialIndex==getSerialIndex).			
ACTUAL RESULTS				
Output Specifications and comments :	Passed, True as expected.			

GENERAL INFORMATION				
Test Date:	04/27/2023	Test Case Number:	22	
Test Case Description:	hashCode			
Results:	Passed Failed			
	TES	т		
Input Specifications:	Quarter() as default , Quarter( Date )			
Procedural Steps:	Create quarter object with default constructor, quarter object with date default			
Expected Results of Case:	True (q1.hashCode == q2.hashCode).			
ACTUAL RESULTS				
Output Specifications and comments :				

GENERAL INFORMATION				
Test Date:	04/27/2023	Test Case Number:	23	
Test Case Description:	toSring			
Results:	Passed Failed			
	TEST			
Input Specifications:	Quarter(4, 2050)			
Procedural Steps:	Create quarter object with quarter=4, year=2050			
Expected Results of Case:	"Q4/2050".			
ACTUAL RESULTS				
Output Specifications and comments :  Passed, True as expected.				

# **Bugs Report:**

#### Constructor Quarter (int year, int quarter) :

Quarter range (1, 4): can't detect if user pass -1 or 7 or any number out of the range but work normally with the number passed even if it's a negative number.

Year range (1900,9999): throw illegalArgumentException when passing any number out of the range and not documented how to handle this case.

#### getQuarter:

Get wrongs value with values out of the range (1,4) due to constructor deal with quarter values out of the range.

#### getYear:

Not Handle Exceptions or documented it if the value is out of the range (1900,9999).

#### next:

when passing quarter(-3,2027) get <Q-2/2027> must handle and document this case.

#### previous:

when passing quarter(7,2021) get <Q6/2021> must handle and document this case.



