**Stage configuration**

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| **Name** | **Class** | **Stage** |
| setupScenario1 | GeneratorTest | An object of the Generator class with n=9 |
| setupScenario2 | GeneratorTest | An object of the Generator class with n=18 |
| setupScenario3 | GeneratorTest | An object of the Generator class with n=74 |
| setupScenario4 | GeneratorTest | An object of the Generator class with n=45 |

**Test case design**

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| Test Objective: verify that the testIsPrime method works correctly by calculating if 5 is a prime number | | | | | |
| **Class** | **Method** | **Stage** | **Input** | **Outcome** |  |
| GeneratorTest | testIsPrime | setupScenario1 | 5 | 5 is a prime number |  |

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| Test Objective: verify that the testIsPrime2 method works correctly by calculating if 100 is a prime number | | | | |
| **Class** | **Method** | **Stage** | **Input** | **Outcome** |
| GeneratorTest | testIsPrime2 | setupScenario1 | 100 | 100 is not a prime number |

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| Test Objective: verify that the testIsPrime3 method works correctly by calculating if 1 is a prime number | | | | |
| **Class** | **Method** | **Stage** | **Input** | **Outcome** |
| GeneratorTest | testIsPrime3 | setupScenario1 | 1 | 1 is not a prime number |

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| Test Objective: Verify that the number of primes ​​found by testAmmountOfPrimes is as expected | | | | |
| **Class** | **Method** | **Stage** | **Input** | **Outcome** |
| GeneratorTest | testAmmountOfPrimes | setupScenario1 | 9 | There are 4 prime numbers |

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| Test Objective: Verify that the number of primes ​​found by testAmmountOfPrimes2 is as expected | | | | |
| **Class** | **Method** | **Stage** | **Input** | **Outcome** |
| GeneratorTest | testAmmountOfPrimes2 | setupScenario2 | 18 | There are 7 prime numbers |

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| **Class** | **Method** | **Stage** | **Input** | **Outcome** |
| GeneratorTest | matrixDistributionTest | setupScenario1 | 9 | The matrix will have 3 rows and 3 columns |

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| Test Objective: Verify if the matrix dristribution is the expected | | | | |
| **Class** | **Method** | **Stage** | **Input** | **Outcome** |
| GeneratorTest | matrixDistributionTest2 | setupScenario2 | 18 | The matrix will have 5 rows and 4 columns |

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| Test Objective: Verify if the matrix dristribution is the expected | | | | |
| **Class** | **Method** | **Stage** | **Input** | **Outcome** |
| GeneratorTest | matrixDistributionTest3 | setupScenario4 | 45 | The matrix will have 8 rows and 6 columns |

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| Test Objective: Verify if the matrix dristribution is the expected | | | | |
| **Class** | **Method** | **Stage** | **Input** | **Outcome** |
| GeneratorTest | matrixDistributionTest4 | setupScenario3 | 74 | The matrix will have 10 rows and 8 columns |

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| Test Objective: Verify that the betwiseSieve method finds the expected prime numbers | | | | |
| **Class** | **Method** | **Stage** | **Input** | **Outcome** |
| GeneratorTest | betwiseSieveTest | setupScenario2 | 18 | Prime numbers are: 2,3,5,7,11,13,17 |

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| Test Objective: Verify that the betwiseSieve2 method finds the expected prime numbers | | | | |
| **Class** | **Method** | **Stage** | **Input** | **Outcome** |
| GeneratorTest | betwiseSieveTest2 | setupScenario4 | 45 | Prime numbers are: 2,3,5,7,11,13,17,19,23,29,31,37,41,43 |

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| Test Objective: Verify that the betwiseSieve3 method finds the expected prime numbers | | | | |
| **Class** | **Method** | **Stage** | **Input** | **Outcome** |
| GeneratorTest | betwiseSieveTest3 | setupScenario1 | 9 | Prime numbers are: 2,3,5,7 |

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| Test Objective: Verify that the sieveOfSundaramTest method finds the expected prime numbers | | | | |
| **Class** | **Method** | **Stage** | **Input** | **Outcome** |
| GeneratorTest | sieveOfSundaramTest | setupScenario2 | 18 | Prime number are: 2,3,5,7,11,13,17 |

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| Test Objective: Verify that the sieveOfSundaramTest2 method finds the expected prime numbers | | | | |
| **Class** | **Method** | **Stage** | **Input** | **Outcome** |
| GeneratorTest | sieveOfSundaramTest2 | setupScenario4 | 45 | Prime number are: 2,3,5,7,11,13,17,19,23,29,31,37,41,43 |

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| Test Objective: Verify that the sieveOfSundaramTest3 method finds the expected prime numbers | | | | |
| **Class** | **Method** | **Stage** | **Input** | **Outcome** |
| GeneratorTest | sieveOfSundaramTest3 | setupScenario1 | 9 | Prime number are: 2,3,5,7 |

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| Test Objective: Verify that the sieveOfEratosthenesTest method finds the expected prime numbers | | | | |
| **Class** | **Method** | **Stage** | **Input** | **Outcome** |
| GeneratorTest | sieveOfEratosthenesTest | setupScenario2 | 18 | Prime number are: 2,3,5,7,11,13,17 |

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| Test Objective: Verify that the sieveOfEratosthenesTest2 method finds the expected prime numbers | | | | |
| **Class** | **Method** | **Stage** | **Input** | **Outcome** |
| GeneratorTest | sieveOfEratosthenesTest2 | setupScenario4 | 45 | Prime number are: 2,3,5,7,11,13,17,19,23,29,31,37,41,43 |

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| Test Objective: Verify that the sieveOfEratosthenesTest3 method finds the expected prime numbers | | | | |
| **Class** | **Method** | **Stage** | **Input** | **Outcome** |
| GeneratorTest | sieveOfEratosthenesTest3 | setupScenario1 | 9 | Prime number are: 2,3,5,7 |