**Testing of the SiedlerGame.java class**

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| **Equivalence Partitionings** | | |  |  |
|  |  |  |  |  |
|  | **Negative** |  |  |  |
| 1 | Illegal placement position |  |  |  |
| 3 | Build with not enough resources |  |  |  |
| 6 | Trade where player does not have enough resources |  |  |  |
| 7 | Trade where bank does not have enough resources | | | |
| 8 | No player has won game | | | |
| 11 | Robbery no player has more than 7 resources | | | |
| 14 | Thief placement at field with no settlements around | | | |
| 16 | Resources are payed out | | | |
| 17 | No Resources are payed out | | | |
| 19 | player has no structures left to build | | | |
|  |  |  |  |  |
|  | **Positive** |  |  |  |
| 2 | Legal placement position | | | |
| 4 | Build with enough resources | | | |
| 5 | Trade where player and bank have enough resources | | | |
| 9 | One player has won game | | | |
| 10 | More than one player has won game | | | |
| 12 | Robbery one player has more than 7 resources | | | |
| 13 | Robbery more than one player has 7 resources | | | |
| 15 | Thief placement at field with one settlement around | | | |
| 18 | Player strucutres left to build | | | |
| 20 | initialize board | | | |
| 21 | player switch to next player | | | |
| 22 | player switch to previous player | | | |

**Test log**

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| **default testcases** | **Eqivalence Partititoning** |
| requirementPlayerSwitching |  |
| requirementSetupTestBoardUsedWithTheTests | 20 |
| requirementResourcePayoutAndReturnValueForDiceThrow |  |
|  |  |
| requirementPlaceInitialSettlementInCountrySideNoPayout | 2, 21 |
| requirementPlaceInitialSettlementInWaterNoPayout | 1, 21 |
| requirementPlaceInitialSettlementNextToWaterNoPayout | 1, 21 |
| requirementPlaceInitialSettlementValidPositionWithPayout | 2, 20 |
|  |  |
| requirementPlaceInitialRoadCorrectPlacement | 2 |
| requirementPlaceInitialRoadCorrectPlacementStartWithEndPoint | 2 |
| requirementPlaceInitialRoadNoHouseAdjacent | 1 |
| requirementPlaceInitialRoadNoOwnHouseAdjacent | 1 |
| requirementPlaceInitialRoadPlaceAlreadyUsed | 1 |
| requirementPlaceInitialRoadPositionInWater | 1 |
| requirementPlaceInitialRoadInvalidStartAndEnd | 1 |
|  |  |
| requirementBuildSettlementValidPosition | 2,4, 22, 20 |
| requirementBuildSettlementNoResources | 3 |
| requirementBuildSettlementNoSettlementsLeftToBuild | 23 |
| requirementBuildSettlementNoAdjacentRoad | 1 |
| requirementBuildSettlementAdjacentRoadFromOtherPlayers | 1 |
| requirementBuildSettlementInWater | 1 |
| requirementBuildSettlementOponentSettlementAdjacent | 1 |
| requirementBuildSettlementOwnSettlementAdjacent | 1 |
| requirementBuildSettlementPositionAllreadyUsed | 1 |
|  |  |
| requirementBuildCityValidPosition | 2,4, 22 |
| requirementBuildCityAlreadyBuildCityAtPosition | 1 |
| requirementBuildCityNotEnoughResources | 3 |
| requirementBuildCityInvalidPosition | 1 |
| requirementBuildCityNoCitiesLeftToBuild | 23 |
|  |  |
| requirementBuildRoadValidPositionAdjacentSettlement | 2,4, 22 |
| requirementBuildRoadNoRoadsLeftToBuild | 23 |
| requirementBuildRoadValidPositionAdjacentRoad | 1 |
| requirementBuildRoadValidPositionAdjacentRoadOnlyFromOtherPlayer | 1 |
| requirementBuildRoadValidPositionNoAdjacentSettlementOrRoad | 1 |
| requirementBuildRoadValidPositionAdjacentRoadNoResources | 3 |
| requirementBuildRoadValidPositionAdjacentSettlementNoResources | 3 |
| requirementBuildRoadInWaterHasAdjacentSettlement | 1 |
| requirementBuildRoadInWaterHasAdjacentRoad | 1 |
| requirementBuildRoadOtherRoadAlreadyBuild | 1 |
|  |  |
| requirementTradeWithBankFourToOnePlayerAndBankHaveResources | 7 |
| requirementTradeWithBankFourToOnePlayerAndBankHaveResourcesSameResources | 7 |
| requirementTradeWithBankFourToOneBankHasNotResource | 8 |
| requirementTradeWithBankFourToOnePlayerHasNotEnoughResource | 9 |
|  |  |
| requirementGetWinnerWithNoWinner | 10 |
| requirementGetWinnerWithOneWinnerWithCities | 11 |
| requirementGetWinnerWithOneWinner | 11 |
| requirementGetWinnerWithMultipleWinner | 12 |
|  |  |
| requirementPlaceThiefAndStealCardNoPlayerHasMoreThanSevenResources | 13 |
| requirementPlaceThiefAndStealCurrentPlayerHasMoreThanSevenResources | 14 |
| requirementPlaceThiefAndStealCurrentPlayerHasEightResources | 14 |
| requirementPlaceThiefAndStealCurrentPlayerHasSevenResources | 13 |
| requirementPlaceThiefAndStealTwoHasMoreThanSevenResources | 15 |
| requirementPlaceThiefAndStealInvalidThiefPosition | 1 |
| requirementPlaceThiefAndStealPositionOnWater | 1 |
| requirementPlaceThiefAndStealOneSettlementFromCurrentPlayer | 18 |
| requirementPlaceThiefAndStealOneSettlementFromOtherPlayer | 18 |
| requirementPlaceThiefAndStealOneSettlementFromOtherPlayerWithNoResources | 18 |
| requirementPlaceThiefAndStealOneSettlementFromOtherPlayerWithNoMoreResources | 18 |
| requirementPlaceThiefAndStealNoSettlementsAroundThiefField | 17 |
| requirementPlaceThiefAndStealSetThiefOnSameField | 1 |
|  |  |
|  |  |
| requirementThrowDiceThiefIsSetNoResourcesPayedOut | 20 |
| requirementThrowDiceThiefIsOnOtherFieldSetResourcesPayedOut | 21 |

**Screenshots**



