**TRACEABILITY MATRIX (URS / SRS)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **URS**    **SRS** | **URS-01** | **URS-02** | **URS-03** | **URS-04** | **URS-05** | **URS-06** | **URS-07** | **URS-08** | **URS-09** | **URS-10** | **URS-11** | **URS-12** | **URS-13** | **URS-14** | **URS-15** | **URS-16** | **URS-17** | **URS-18** |
| **SRS-01** | **×** |  |  |  |  |  |  | **×** |  |  |  |  |  |  |  |  |  |  |
| **SRS-02** | **×** |  |  |  |  |  |  | **×** |  |  |  |  |  |  |  |  |  |  |
| **SRS-03** | **×** |  |  |  |  |  |  | **×** |  |  |  |  |  |  |  |  |  |  |
| **SRS-04** | **×** |  |  |  |  |  |  | **×** |  |  |  |  |  |  |  |  |  |  |
| **SRS-05** | **×** |  |  |  |  |  |  | **×** |  |  |  |  |  |  |  |  |  |  |
| **SRS-06** | **×** |  |  |  |  |  |  | **×** |  |  |  |  |  |  |  |  |  |  |
| **SRS-07** | **×** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **SRS-08** | **×** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **SRS-09** |  | **×** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **SRS-10** |  | **×** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **SRS-11** |  | **×** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **SRS-12** |  |  | **×** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **SRS-13** |  |  | **×** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **SRS-14** |  |  | **×** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **SRS-15** |  |  | **×** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **SRS-16** |  |  |  | **×** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **SRS-17** |  |  |  | **×** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **SRS-18** |  |  |  | **×** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **SRS-19** |  |  |  |  | **×** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **SRS-20** |  |  |  |  | **×** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **SRS-21** |  |  |  |  | **×** |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **URS**    **SRS** | **URS-01** | **URS-02** | **URS-03** | **URS-04** | **URS-05** | **URS-06** | **URS-07** | **URS-08** | **URS-09** | **URS-10** | **URS-11** | **URS-12** | **URS-13** | **URS-14** | **URS-15** | **URS-16** | **URS-17** | **URS-18** |
| **SRS-22** |  |  |  |  |  | **×** |  |  |  |  |  |  |  |  |  |  | **×** |  |
| **SRS-23** |  |  |  |  |  | **×** |  |  |  |  |  |  |  |  |  |  | **×** |  |
| **SRS-24** |  |  |  |  |  | **×** |  |  |  |  |  |  |  |  |  |  | **×** |  |
| **SRS-25** |  |  |  |  |  |  | **×** |  |  |  |  |  |  |  |  |  |  |  |
| **SRS-26** |  |  |  |  |  |  | **×** |  |  |  |  |  |  |  |  |  |  |  |
| **SRS-27** |  |  |  |  |  |  | **×** |  |  |  |  |  |  |  |  |  |  |  |
| **SRS-28** |  |  |  |  |  |  | **×** |  | **×** |  |  |  |  |  |  |  |  |  |
| **SRS-29** |  |  |  |  |  |  | **×** |  | **×** |  |  |  |  |  |  |  |  |  |
| **SRS-30** |  |  |  |  |  |  | **×** |  |  |  |  |  |  |  |  |  |  |  |
| **SRS-31** |  |  |  |  |  |  | **×** |  | **×** |  |  |  |  |  |  |  |  |  |
| **SRS-32** |  |  |  |  |  |  | **×** |  | **×** |  |  |  |  |  |  |  |  |  |
| **SRS-33** |  |  |  |  |  |  | **×** |  | **×** |  |  |  |  |  |  |  |  |  |
| **SRS-34** |  |  |  |  |  |  | **×** |  | **×** |  |  |  |  |  |  |  |  |  |
| **SRS-35** |  |  |  |  |  |  | **×** |  |  |  |  |  |  |  |  |  |  |  |
| **SRS-36** |  |  |  |  |  |  | **×** |  |  |  |  |  |  |  |  |  |  |  |
| **SRS-37** |  |  |  |  |  |  | **×** |  |  |  |  |  |  |  |  |  |  |  |
| **SRS-38** |  |  |  |  |  |  | **×** |  | **×** |  |  |  |  |  |  |  |  |  |
| **SRS-39** |  |  |  |  |  |  | **×** |  | **×** |  |  |  |  |  |  |  |  |  |
| **SRS-40** |  |  |  |  |  |  | **×** |  |  |  |  |  |  |  |  |  |  |  |
| **SRS-41** |  |  |  |  |  |  | **×** |  | **×** |  |  |  |  |  |  |  |  |  |
| **SRS-42** |  |  |  |  |  |  | **×** |  | **×** |  |  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **URS**    **SRS** | **URS-01** | **URS-02** | **URS-03** | **URS-04** | **URS-05** | **URS-06** | **URS-07** | **URS-08** | **URS-09** | **URS-10** | **URS-11** | **URS-12** | **URS-13** | **URS-14** | **URS-15** | **URS-16** | **URS-17** | **URS-18** |
| **SRS-43** |  |  |  |  |  |  | **×** |  | **×** |  |  |  |  |  |  |  |  |  |
| **SRS-44** |  |  |  |  |  |  | **×** |  | **×** |  |  |  |  |  |  |  |  |  |
| **SRS-45** |  |  |  |  |  |  |  | **×** |  |  |  |  |  |  |  |  |  |  |
| **SRS-46** |  |  |  |  |  |  |  | **×** |  |  |  |  |  |  |  |  |  |  |
| **SRS-47** |  |  |  |  |  |  |  |  | **×** |  |  |  |  |  |  |  |  |  |
| **SRS-48** |  |  |  |  |  |  |  |  | **×** |  |  |  |  |  |  |  |  |  |
| **SRS-49** |  |  |  |  |  |  |  |  | **×** |  |  |  |  |  |  |  |  |  |
| **SRS-50** |  |  |  |  |  |  |  |  |  | **×** |  |  |  |  |  |  |  |  |
| **SRS-51** |  |  |  |  |  |  |  |  |  | **×** |  |  |  |  |  |  |  |  |
| **SRS-52** |  |  |  |  |  |  |  |  |  | **×** |  |  |  |  |  |  |  |  |
| **SRS-53** |  |  |  |  |  |  |  |  |  |  | **×** |  |  |  |  |  |  |  |
| **SRS-54** |  |  |  |  |  |  |  |  |  |  | **×** |  |  |  |  |  |  |  |
| **SRS-55** |  |  |  |  |  |  |  |  |  |  | **×** |  |  |  |  |  |  |  |
| **SRS-56** |  |  |  |  |  |  |  |  |  |  | **×** |  |  |  |  |  |  |  |
| **SRS-57** |  |  |  |  |  |  |  |  |  |  | **×** |  |  |  |  |  |  |  |
| **SRS-58** |  |  |  |  |  |  |  |  |  |  |  | **×** |  |  |  |  |  |  |
| **SRS-59** |  |  |  |  |  |  |  |  |  |  |  | **×** |  |  |  |  |  |  |
| **SRS-60** |  |  |  |  |  |  |  |  |  |  |  | **×** |  |  |  |  |  |  |
| **SRS-61** |  |  |  |  |  |  |  |  |  |  |  |  | **×** |  |  |  |  |  |
| **SRS-62** |  |  |  |  |  |  |  |  |  |  |  |  | **×** |  |  |  |  |  |
| **SRS-63** |  |  |  |  |  |  |  |  |  |  |  |  | **×** |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **URS**    **SRS** | **URS-01** | **URS-02** | **URS-03** | **URS-04** | **URS-05** | **URS-06** | **URS-07** | **URS-08** | **URS-09** | **URS-10** | **URS-11** | **URS-12** | **URS-13** | **URS-14** | **URS-15** | **URS-16** | **URS-17** | **URS-18** |
| **SRS-64** |  |  |  |  |  |  |  |  |  |  |  |  |  | **×** |  | **×** |  |  |
| **SRS-65** |  |  |  |  |  |  |  |  |  |  |  |  |  | **×** |  |  |  |  |
| **SRS-66** |  |  |  |  |  |  |  |  |  |  |  |  |  | **×** |  |  |  |  |
| **SRS-67** |  |  |  |  |  |  |  |  |  |  |  |  |  | **×** |  |  |  |  |
| **SRS-68** |  |  |  |  |  |  |  |  |  |  |  |  |  | **×** |  |  |  |  |
| **SRS-69** |  |  |  |  |  |  |  |  |  |  |  |  |  | **×** |  |  |  |  |
| **SRS-70** |  |  |  |  |  |  |  |  |  |  |  |  |  | **×** |  |  |  |  |
| **SRS-71** |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **×** |  |  |  |
| **SRS-72** |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **×** |  |  |  |
| **SRS-73** |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **×** |  |  |  |
| **SRS-74** |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **×** |  |  |  |
| **SRS-75** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **×** |  |  |
| **SRS-76** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **×** |
| **SRS-77** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **×** |
| **SRS-78** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **×** |
| **SRS-79** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **×** |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **URS**  **Use Case**  **Diagram** | **URS-01** | **URS-02** | **URS-03** | **URS-04** | **URS-05** | **URS-06** | **URS-07** | **URS-08** | **URS-09** | **URS-10** | **URS-11** | **URS-12** | **URS-13** | **URS-14** | **URS-15** | **URS-16** | **URS-17** | **URS-18** |
| **UC-01** | **×** |  |  |  |  |  |  | **×** |  |  |  |  |  |  |  |  |  |  |
| **UC-02** |  | **×** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **UC-03** |  |  | **×** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **UC-04** |  |  |  | **×** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **UC-05** |  |  |  |  | **×** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **UC-06** |  |  |  |  |  | **×** |  |  |  |  |  |  |  |  |  |  | **×** |  |
| **UC-07** |  |  |  |  |  |  | **×** |  |  |  |  |  |  |  |  |  |  |  |
| **UC-08** |  |  |  |  |  |  |  |  | **×** |  |  |  |  |  |  |  |  |  |
| **UC-09** |  |  |  |  |  |  |  |  |  | **×** |  |  |  |  |  |  |  |  |
| **UC-10** |  |  |  |  |  |  |  |  |  |  | **×** |  |  |  |  |  |  |  |
| **UC-11** |  |  |  |  |  |  |  |  |  |  |  | **×** |  |  |  |  |  |  |
| **UC-12** |  |  |  |  |  |  |  |  |  |  |  |  | **×** |  |  |  |  |  |
| **UC-13** |  |  |  |  |  |  |  |  |  |  |  |  |  | **×** |  |  |  |  |
| **UC-14** |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **×** |  |  |  |
| **UC-15** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **×** |  |  |
| **UC-16** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **×** |

**TRACEABILITY MATRIX (URS / Use Case Diagram)**

**TRACEABILITY MATRIX (URS / Class Diagram)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **URS**  **Class**  **Diagram** | **URS-01** | **URS-02** | **URS-03** | **URS-04** | **URS-05** | **URS-06** | **URS-07** | **URS-08** | **URS-09** | **URS-10** | **URS-11** | **URS-12** | **URS-13** | **URS-14** | **URS-15** | **URS-16** | **URS-17** | **URS-18** |
| **CD-01** |  |  |  |  | **×** |  |  |  |  |  |  | **×** | **×** | **×** | **×** | **×** |  | **×** |
| **CD-02** |  | **×** | **×** | **×** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **CD-03** | **×** |  |  |  |  | **×** | **×** | **×** | **×** |  |  |  |  |  |  |  | **×** |  |
| **CD-04** |  |  |  |  |  |  |  |  |  | **×** | **×** |  |  |  |  |  |  |  |
| **CD-05** |  |  |  |  |  |  | **×** | **×** | **×** |  |  |  |  |  |  |  |  |  |
| **CD-06** |  |  |  |  | **×** |  |  |  |  |  |  |  |  | **×** |  |  |  |  |
| **CD-07** |  |  |  |  | **×** |  |  |  |  |  |  | **×** | **×** | **×** | **×** | **×** |  | **×** |
| **CD-08** |  |  |  |  |  |  |  |  |  |  |  | **×** | **×** |  |  |  |  |  |
| **CD-09** |  |  |  |  |  |  |  |  |  | **×** | **×** |  |  |  |  |  |  |  |
| **CD-10** |  | **×** | **×** | **×** |  |  |  |  |  | **×** | **×** |  |  |  |  |  |  |  |
| **CD-11** |  | **×** | **×** | **×** |  |  |  |  |  | **×** | **×** | **×** | **×** | **×** | **×** | **×** |  | **×** |
| **CD-12** |  | **×** | **×** | **×** |  |  |  |  |  | **×** | **×** | **×** | **×** | **×** | **×** | **×** |  | **×** |
| **CD-13** |  |  |  |  |  |  | **×** | **×** | **×** |  |  |  |  |  |  |  |  |  |
| **CD-14** |  |  |  |  |  |  | **×** | **×** | **×** |  |  |  |  |  |  |  |  |  |
| **CD-15** |  | **×** | **×** | **×** |  |  | **×** | **×** | **×** | **×** | **×** | **×** | **×** | **×** | **×** | **×** |  | **×** |

**TRACEABILITY MATRIX (URS / Sequence Diagram)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **URS**  **Class**  **Diagram** | **URS-01** | **URS-02** | **URS-03** | **URS-04** | **URS-05** | **URS-06** | **URS-07** | **URS-08** | **URS-09** | **URS-10** | **URS-11** | **URS-12** | **URS-13** | **URS-14** | **URS-15** | **URS-16** | **URS-17** | **URS-18** |
| **SD-01** | **x** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **SD-02** |  | **x** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **SD-03** |  |  | **x** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **SD-04** |  |  |  | **x** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **SD-05** |  |  |  |  | **x** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **SD-06** |  |  |  |  |  | **x** |  |  |  |  |  |  |  |  |  |  |  |  |
| **SD-07** |  |  |  |  |  |  | **x** |  |  |  |  |  |  |  |  |  |  |  |
| **SD-08** |  |  |  |  |  |  |  | **x** |  |  |  |  |  |  |  |  |  |  |
| **SD-09** |  |  |  |  |  |  |  |  | **x** |  |  |  |  |  |  |  |  |  |
| **SD-10** |  |  |  |  |  |  |  |  |  | **x** |  |  |  |  |  |  |  |  |
| **SD-11** |  |  |  |  |  |  |  |  |  |  | **x** |  |  |  |  |  |  |  |
| **SD-12** |  |  |  |  |  |  |  |  |  |  |  | **x** |  |  |  |  |  |  |
| **SD-13** |  |  |  |  |  |  |  |  |  |  |  |  | **x** |  |  |  |  |  |
| **SD-14** |  |  |  |  |  |  |  |  |  |  |  |  |  | **x** |  |  |  |  |
| **SD-15** |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **x** |  |  |  |
| **SD-16** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **x** |  |  |
| **SD-17** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **x** |  |
| **SD-18** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **x** |

**• Summary of Traceability Matrix**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **URS** | **Function Name** | **SRS** | **Use Case (UC)** | **Sequence Diagram (SD)** | **Class Diagram (CD)** |
| 1 | URS-01 | **The administrator can login to the system.** | SRS01- SRS08 | UC-01 | SD-01 | CD-03 |
| 2 | URS-02 | **The administrator can add the product to the system consists of the name, description, and pictures of the product.** | SRS09-SRS11 | UC-02 | SD-02 | CD-02,CD-10-CD-12 |
| 3 | URS-03 | **The administrator can edit details of the product.** | SRS12-SRS15 | UC-03 | SD-03 | CD-02,CD-10-CD-12 |
| 4 | URS-04 | **The administrator can remove the products out of the system.** | SRS16-SRS18 | UC-04 | SD-04 | CD-02,CD-10-CD-12 |
| 5 | URS-05 | **The administrator can see the shopping history of all customers.** | SRS19-SRS21 | UC-05 | SD-05 | CD-01,CD-06-CD-07 |
| 6 | URS-06 | **The administrator can log out the system.** | SRS22-SRS24 | UC-06 | SD-06 | CD-03 |
| 7 | URS-07 | **The customer can register an account to access with the system.** | SRS25, SRS44 | UC-07 | SD-07 | CD-03,CD-05,CD-13-CD-15 |
| 8 | URS-08 | **The customer can log in to the system.** | SRS01-SRS06,  SRS45-SRS46 | UC-01 | SD-08 | CD-03,CD-05,CD-13-CD-15 |

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| **No.** | **URS** | **Function Name** | **SRS** | **Use Case (UC)** | **Sequence Diagram (SD)** | **Class Diagram (CD)** |
| 9 | URS-09 | **The customer can update his registration information after he was a member.** | SRS47,SRS28,SRS29,  SRS31-SRS34,  SRS38-SRS39,  SRS41-SRS44,  SRS48-SRS49 | UC-08 | SD-09- | CD-03,CD-05,CD-13-CD-15 |
| 10 | URS-10 | **The customer can browse the product catalogs.** | SRS50-SRS52 | UC-09 | SD-10 | CD-04,CD-09-CD-12,CD-15 |
| 11 | URS-11 | **The customer can search for the product name.** | SRS53-SRS57 | UC-10 | SD-11 | CD-04,CD-09-CD-12,CD-15 |
| 12 | URS-12 | **The customer can add the product to his shopping cart.** | SRS58-SRS60 | UC-11 | SD-12 | CD-01,CD-07-CD-08,CD-11-CD-12,CD-15 |
| 13 | URS-13 | **The customer can remove the added product on the shopping cart.** | SRS61-SRS63 | UC-12 | SD-13 | CD-01,CD-07-CD-08,CD-11-CD-12,CD-15 |
| 14 | URS-14 | **The customer can select checkout to see the buying transaction summary.** | SRS64-SRS70 | UC-13 | SD-14 | CD-01,CD-06-CD-07,CD-11-CD-12,CD-15 |
| 15 | URS-15 | **The customer can see the shopping history which he had done the shopping process.** | SRS71-SRS74 | UC-14 | SD-15 | CD-01,CD-07,CD-11-CD-12,CD-15 |
| 16 | URS-16 | **The customer can save the shopping cart which will be shopping ​​later.** | SRS64,SRS75 | UC-15 | SD-16 | CD-01,CD-07,CD-11-CD-12,CD-15 |
| 17 | URS-17 | **The customer can log out the system.** | SRS22-SRS24 | UC-06 | SD-17 | CD-03 |
| 18 | URS-18 | **The customer can continue shopping the latest cart.** | SRS76-SRS79 | UC-16 | SD-18 | CD-01,CD-07,CD-11-CD-12,CD-15 |