# Black-Box Unit Testing

Through equivalence testing with boundary value analysis

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| **Course data:** |  |
| Equivalence classes for crseNo. |  |
| 1. First character not integer | Error (not an integer) |
| 1. < 4 integers | Error |
| 1. 4 integers | Acceptable |
| Equivalence classes for title. |  |
| 1. First character not letter | Error (not a letter) |
| 1. < 5 characters | Error |
| 1. 5 characters | Acceptable |
| 1. Between 5 and 35 characters | Acceptable |
| 1. > 35 characters | Error (too many characters) |
| Equivalence classes for subj. |  |
| 1. First character not integer | Error (not an integer) |
| 1. < 2 characters | Error |
| 1. 2 characters | Acceptable |
| 1. Between 2 and 4 characters | Acceptable |
| 1. 4 characters | Acceptable |
| 1. > 4 characters | Error (too many characters) |

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| **Course Section data:** |  |
| Equivalence classes for CRN. |  |
| 1. First character not integer | Error (not an integer) |
| 1. < 5 integers | Error |
| 1. 5 integers | Acceptable |
| Equivalence classes for startTime. |  |
| 1. First character not integer | Error (not an integer) |
| 1. < 6 characters | Error |
| 1. 6 characters | Acceptable |
| Equivalence classes for endTime. |  |
| 1. First character not integer | Error (not an integer) |
| 1. < 6 characters | Error |
| 1. 6 characters | Acceptable |
| Equivalence classes for timePer. |  |
| 1. First character not a letter | Error (not a letter) |
| 1. < 2 character | Error |
| 1. 2 characters | Acceptable |
| 1. ls | Error (not within enum range) |
| 1. am | Acceptable |
| Equivalence classes for days. |  |
| 1. First character not a letter | Error (not a letter) |
| 1. < 1 character | Error |
| 1. 1 character | Acceptable |
| 1. 2 characters | Acceptable |
| 1. > 2 characters | Acceptable |
| 1. L | Error (not within set) |
| 1. Th | Acceptable |
| Equivalence classes for deliveryMode. |  |
| 1. First character not a letter | Error (not a letter) |
| 1. S | Error |
| 1. H | Acceptable |

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| **Grade data:** |  |
| Equivalence classes for assignment. |  |
| 1. First character not letter | Error (not a letter) |
| 1. < 4 characters | Error |
| 1. 4 characters | Acceptable |
| 1. Between 4 and 35 characters | Acceptable |
| 1. 35 characters | Acceptable |
| 1. > 35 characters | Error (too many characters) |
| Equivalence classes for grade. |  |
| 1. First character not an integer | Error (not an integer) |
| 1. < 1 integer | Error |
| 1. 1 integer | Acceptable |
| 1. 2 integers | Acceptable |
| 1. > 2 integers | Error (too many integers) |

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| **Student data:** |  |
| Equivalence classes for studentID. |  |
| 1. First character not integer | Error (not an integer) |
| 1. < 9 integers | Error |
| 1. 9 integers | Acceptable |
| Equivalence classes for password. |  |
| 1. First character not from letter, digit, or nonalphanumeric | Error (not a letter, digit, or nonalphanumeric character) |
| 1. < 8 characters | Error |
| 1. 8 characters | Acceptable |
| 1. Between 8 and 16 characters | Acceptable |
| 1. 16 characters | Acceptable |
| 1. > 16 characters | Error (too many characters) |
| Equivalence classes for fName. |  |
| 1. First character not letter | Error (not a letter) |
| 1. < 1 character | Error |
| 1. 1 character | Acceptable |
| 1. Between 1 and 35 characters | Acceptable |
| 1. 35 | Acceptable |
| 1. > 35 characters | Error (too many characters) |
| Equivalence classes for lName. |  |
| 1. First character not a character | Error (not a character) |
| 1. < 1 character | Error |
| 1. 1 character | Acceptable |
| 1. Between 1 and 35 characters | Acceptable |
| 1. 35 | Acceptable |
| 1. > 35 characters | Error (too many characters) |
| Equivalence classes for regStatus. |  |
| 1. First character not bool | Error (not a bool) |
| 1. 0 | Acceptable |
| Equivalence classes for gpa. |  |
| 1. First character not integer | Error (not an integer) |
| 1. < 2 characters | Error |
| 1. 2 characters | Acceptable |
| Equivalence classes for email. |  |
| 1. < 19 characters | Error |
| 1. 19 characters | Acceptable |