Laboratorio 6: Casos de Prueba en Pruebas de caja negra

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1) En el caso de Date.java:

Clases de equivalencia:

External condition	Valid equivalence classes	Invalid equivalence classes
year value	year >= 1900 && year <= 2500	year < 1900 || year > 2050
month value	month >= 1 && month <= 12	month < 1 || month > 12
day value if month in {1, 3, 5, 7, 8, 10, 12}	day >= 1 && day <= 31	day < 1 || day > 31
day value if month in {4, 6, 9, 11}	day >= 1 && day <= 30	day < 1 || day > 30
day value if month == 2 && isLeap(year)	day >= 1 && day <= 29	day < 1 || day > 29
day value if month == 2 && !isLeap(year)	day >= 1 && day <= 28	day < 1 || day > 28

Casos de prueba:

0. Test constructor with valid date 1/1/1900
1. If year less than 1900 date is invalid
2. If year greater than 2050 date is invalid
3. If month less than 1 date is invalid
4. If month greater than 12 date is invalid
5. If day less than 1 date is invalid
6. If day greater than 31 date is invalid
7. 7.1. If month is 4 and day greater than 30 date is invalid

    7.2. If month is 6 and day greater than 30 date is invalid

    7.3. If month is 9 and day greater than 30 date is invalid

    7.4. If month is 11 and day greater than 30 date is invalid
8. If month is 2 and day greater than 29 and is leap year date is invalid
9. If month is 2 and day greater than 28 and is not leap year date is invalid
10. 10.1. If month is 2 and day is 29 and is leap year date is valid

    10.2. If month is 2 and day is 28 and is not leap year date is valid

    10.3. If year is correct and month is correct and day is correct (ex. 31/12/2050) date is valid

2) En el caso de PasswordString.java:

Clases de equivalencia:

External condition	Valid equivalence classes	Invalid equivalence classes
Null value	password != null	password == null
Password's length	password.length >= 8 && password.length <= 20	password.length < 8 || password.length > 20
Number of numbers contained	password contains at least 1 number	password does not contain at least 1 number
Number of special characters contained	password contains at least 1 character from the set {'.', ',',':','?','¿'}	password does not contain at least 1 character from the set {'.', ',',':','?','¿'}

Casos de prueba:

0. Test constructor with valid password "abcdefgh1."
1. If password is null it is invalid
2. If password's length is less than 8 it is invalid
3. If password's length is greater than 20 it is invalid
4. If password does not contain at least one number it is invalid
5. If password does not contain at least one special character from the set {'.', ',',':','?','¿'} it is invalid
6. If password is correct it is valid (ex. "abcdefgh2?¿")