Test Design Document

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Date class, isValid() method

Test Case #	Requirement	Test description and Input data	Expected result/output
1	Must take a date of birth that is not later than the current day and the date must be a valid date	Boolean beforeCurrentDay must be false from afterCurrentDay() Boolean validateDay must return true from validatedate() Returns true if the date is valid Test data 1: 12/3/2025 Test data 2: 12/3/1990	1: false 2: true
2	Number of days in February for a non-leap year shall be 28	Takes month and day and uses it in validateDate(). Month must be 2. This checks if the day is a valid February date. If not, output false Test data 1: 2/29/2018 Test data 2: 2/15/2018	1: False 2: True
3	Valid range for the month shall be 1-12	Takes month and day and uses it in validateDate(). If month is not within the range of 1-12, return false Test data 1: 13/17/2021 Test data 2: 1/17/2021	1: False 2: True
4	Valid range for the day shall be 1-31	Day in validateDate(). If day is not within the range of 1-31, return false	1: false 2: true

| | | Test data1: 1/45/2020 | |
| | | Test data 2: 1/4/2020 | |

Member class, compareTo() method

Test Case #	Requirement	Test description and Input data	Expected result/output
1	From member input, member must first exist in the database	If member is not in database, return 0 If member is in database, return 1 Test data1: John Doe (not in database) Test data2: John Doe (already in database)	Test1: 0 Test2: 1
2			
3			

Validation() method

Test Case #	Requirement	Test description and input data	Expected result
1	Date of birth must be valid (date exists and date is not the current date)	If date exists and is not current date, return true. Else return false Test1: 01/01/2064 Test2: 09/15/2001	T1: false T2: true
2	Expiration date for membership must still be valid at the time of enrollment	If expiration date is not expired, return true. Else, return false Test1: 11/7/2022 (expires today) Test2: 11/15/2025 (not expired)	T1: false T2: true
3	Member must be above the age of 18	If member is above the age of 18, return true. Else return false Test1: member is 9 years old Test2: member is 21 years old	T1: false T2: true

| 4 | Location must be one of the locations listed in the database | If location input is listed in the database, return true. Else return false

Test1: Ridgewood
Test2: Piscataway | T1: false
T2: true |

validCheckIn() method

Test #	Requirement	Test description and Input data	Expected result/output
1	Expiration date for membership must still be valid at the time of enrollment	If expiration date is not expired, return true. Else, return false Test1: 11/7/2022 (expires today) Test2: 11/15/2025 (not expired)	T1: false T2: true
2	Member must not have a time conflict with another fitness class	If the member does not have a time conflict without another fitness class, return false. Else return true Test1: Member has time conflict Test2: Member does not have time conflict	T1: false T2: true
3	Member's membership rank determines if they can enroll in fitness classes that are not within their main gym location	If membership is Standard or Family, return false. If membership is premium, return true Test1: Member has standard membership Test2: Member has family membership Test3: Member has premium membership	T1: false T2: false T3: true

validGuestCheckIn() method

Test #	Requirement	Test description and Input data	Expected result/output
1	Expiration date for membership must still be valid at the time of enrollment	If expiration date is not expired, return true. Else, return false Test1: 11/7/2022 (expires today) Test2: 11/15/2025 (not expired)	T1: false T2: true
2	Guest must not have a time conflict with another fitness class	If the member does not have a time conflict without another fitness class, return false. Else return true Test1: Member has time conflict Test2: Member does not have time conflict	T1: false T2: true
3	Member's membership rank determines if they can enroll in fitness classes that are not within their main gym location. This restriction also applies to guests whose member's rank is not high enough.	If membership is Standard or Family, return false. If membership is premium, return true Test1: Guest's member has standard membership Test2: Guest's member has family membership Test3: Guest's member has premium membership	T1: false T2: false T3: true

validConditions() method (for fitness classes)

Test Case #	Requirement	Test description and input data	Expected result
1	Date of birth must be valid (date exists and date is not the current date)	If date exists and is not current date, return true. Else return false Test1: 01/01/2064 Test2: 09/15/2001	T1: false T2: true

2	Expiration date for membership must still be valid at the time of enrollment	If expiration date is not expired, return true. Else, return false Test1: 11/7/2022 (expires today) Test2: 11/15/2025 (not expired)	T1: false T2: true
3	Member must be above the age of 18	If member is above the age of 18, return true. Else return false Test1: member is 9 years old Test2: member is 21 years old	T1: false T2: true
4	Location must be one of the locations listed in the database	If location input is listed in the database, return true. Else return false Test1: Ridgewood Test2: Piscataway	T1: false T2: true
5	Member must be in the database	If member is in the database, return true. Else return false T1: not in database T2: in database	T1: false T2: true
6	Fitness class given must exists and must be selected in the GUI	If fitness class given exists in database, return true. Else return false T1: input not selected T2: any input is selected	T1: false T2: true
7	Fitness class instructor must exist	If fitness class instructor exists, return true. Else return false Test1: instructor does not exist Test2: instructor exists	T1: false T2: true
8	The fitness class must exist at a certain location. Some fitness	If the fitness class selected is being given at a certain location,	T1: false T2: true

	classes are not given at some locations	return true. Else return false Test1: Pilates at Somerville Test2: Pilates at Piscataway	