

class name: AccountDatabase

Method Signature: public boolean open() //adding an account to the account database

Test Case #	Requirement	Test Description and Input Data	Expected Result/Output
1	Opening college checking account for New Brunswick, will add account to database with correct info entered	Enter first name, last name, dob, select college checking and NB, and type a numerical amount <ul style="list-style-type: none"><li>Data: Bob, Ross, 01/12/2005, College Checking, NB, 1000</li></ul>	Bob Ross 1/12/2005(Coll ege Checking) opened.
2	Opening college checking account for New Brunswick, will not add account to database due to incorrect info entered	Enter first name, last name, dob under 16, college checking and NB, and numerical amount <ul style="list-style-type: none"><li>Data: Bob, Ross, 05/20/2020, College Checking, NB, 1000</li></ul>	DOB invalid: 5/20/2020 under 16.
3	Opening college checking account for Newark, will add account to database with correct info entered	Enter first name, last name, dob, select college checking and Newark, and type a numerical amount <ul style="list-style-type: none"><li>Data: Jake, Denim, 06/22/2004, College Checking, Newark, 500</li></ul>	Jake Denim 6/22/2004(Coll ege Checking) opened.
4	Opening college checking account for Newark, will not add account to database due to incorrect info entered	Enter first name, last name, dob over 24, college checking and Newark, and numerical amount <ul style="list-style-type: none"><li>Data: Jake, Denim, 06/22/1990, College Checking, Newark, 500</li></ul>	DOB invalid: 6/22/1990 over 24.
5	Opening college checking account for Camden, will add account to database with correct info entered	Enter first name, last name, dob, select college checking and Camden, and type a numerical amount <ul style="list-style-type: none"><li>Data: John, Reese, 08/15/2006, College Checking, Camden, 20</li></ul>	John Reese 8/15/2006(Coll ege Checking) opened.
6	Opening college checking account for Camden, will not add account to database due to incorrect info entered	Enter first name, last name, dob under 16, college checking and Camden, and numerical amount <ul style="list-style-type: none"><li>Data: John, Reese, 08/15/2008, College</li></ul>	DOB invalid: 8/15/2008 under 16.

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		Checking, Camden, 20	
7	Opening checking account, will add account to database with correct info entered	Enter first name, last name, dob, select checking, type a numerical amount <ul style="list-style-type: none"> <li>Data: Aah, Rah, 11/29/2002, Checking, 50</li> </ul>	Aah Rah 11/29/2002(Ch ecking) opened.
8	Opening checking account, will not add account to database due to incorrect info entered	Enter first name, last name, dob under 16, select checking, type a numerical amount <ul style="list-style-type: none"> <li>Data: Aah, Rah, 11/29/2020, Checking, 50</li> </ul>	DOB invalid: 11/29/2020 under 16.
9	Opening savings account - loyal, will add account to database with correct info entered	Enter first name, last name, dob, select savings account and loyal customer, type a numerical amount <ul style="list-style-type: none"> <li>Data: Rob, Rob, 11/13/2003, Savings, Loyal Customer, 100</li> </ul>	Rob Rob 11/13/2003(Sa vings) opened.
10	Opening savings account - loyal, will not add account to database due to incorrect info entered	Enter first name, last name, dob in the future, select savings account and loyal customer, type a numerical amount <ul style="list-style-type: none"> <li>Data: Rob, Rob, 11/13/2030, Savings, Loyal Customer, 100</li> </ul>	DOB invalid: 11/13/2030 cannot be today or a future day.
11	Opening savings account - not loyal, will add account to database with correct info entered	Enter first name, last name, dob, select savings account with no loyal, type a numerical amount <ul style="list-style-type: none"> <li>Data: Reeb, Davis, 11/13/2003, Savings, Uncheck Loyal Customer, 100</li> </ul>	Reeb Davis 11/13/2003(Sa vings) opened.
12	Opening savings account - not loyal, will not add account to database due to incorrect info entered	Enter first name, last name, dob, select savings account with no loyal, type a numerical amount in negatives <ul style="list-style-type: none"> <li>Data: Reeb, Davis, 11/13/2002, Savings, Uncheck Loyal Customer, -100</li> </ul>	INITIAL AMOUNT CANNOT BE 0 OR NEGATIVE
13	Opening money market account, will	Enter first name, last name, dob,	Zee Haas

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	add account to database with correct info entered	select money market account, type numerical amount <ul style="list-style-type: none"> <li>Data: Zee, Haas, 5/14/2002, Money Market, 2000</li> </ul>	5/14/2002(Money Market) opened.
14	Opening money market account, will not add account to database due to incorrect info entered	Enter first name, last name, dob, select money market account, type numerical amount less than 2000 <ul style="list-style-type: none"> <li>Data: Zee, Haaso, 5/14/2002, Money Market, 1000</li> </ul>	Minimum of \$2000 to open a Money Market account.
15	Opening an account that is already in the database will result in an exception, this will test this case	Enter same info as test case 1 <ul style="list-style-type: none"> <li>Data: Bob, Ross, 01/12/2005, College Checking, NB, 1000</li> </ul>	Bob Ross 1/12/2005(College Checking) is already in the database.

class name: AccountDatabase Method Signature: public boolean close() //removing an account to the account database			
Test Case #	Requirement	Test Description and Input Data	Expected Result/Output
16	Closing college checking account for New Brunswick, will remove account from database with proper info entered	Enter test case 1 info to remove this account successfully <ul style="list-style-type: none"> <li>Data: Bob, Ross, 01/12/2005, College Checking, NB, 1000</li> </ul>	Bob Ross 1/12/2005(Coll ege Checking) has been closed.
17	Closing college checking account for New Brunswick, cannot remove account because it doesn't exist	Enter test case 1 info after removing the account from the database again <ul style="list-style-type: none"> <li>Data: Bob, Ross, 01/12/2005, College Checking, NB, 1000</li> </ul>	Bob Ross 1/12/2005(Coll ege Checking) is not in the database.
18	Closing college checking account for Newark, will remove account from database with proper info entered	Enter test case 3 info to remove this account successfully <ul style="list-style-type: none"> <li>Data: Jake, Denim, 06/22/2004, College Checking, Newark, 500</li> </ul>	Jake Denim 6/22/2004(Coll ege Checking) has been closed.
19	Closing college checking account for Newark, cannot remove account because it doesn't exist	Enter test case 3 info after removing the account from the database again <ul style="list-style-type: none"> <li>Data: Jake, Denim, 06/22/2004, College Checking, Newark, 500</li> </ul>	Jake Denim 6/22/2004(Coll ege Checking) is not in the database.
20	Closing college checking account for Camden, will remove account from database with proper info entered	Enter test case 5 info to remove this account successfully <ul style="list-style-type: none"> <li>Data: John, Reese, 08/15/2006, College Checking, Camden, 20</li> </ul>	John Reese 8/15/2006(Coll ege Checking) has been closed.
21	Closing college checking account for Camden, cannot remove account because it doesn't exist	Enter test case 5 info after removing the account from the database again <ul style="list-style-type: none"> <li>Data: John, Reese, 08/15/2006, College Checking, Camden, 20</li> </ul>	John Reese 8/15/2006(Coll ege Checking) is not in the database.
22	Closing checking account, will remove account from database with proper info entered	Enter test case 7 info to remove this account successfully <ul style="list-style-type: none"> <li>Data: Aah, Rah, 11/29/2002, Checking, 50</li> </ul>	Aah Rah 11/29/2002(Ch ecking) has been closed.
23	Closing checking account, cannot remove account because it doesn't exist	Enter test case 7 info after removing the account from the database again <ul style="list-style-type: none"> <li>Data: Aah, Rah, 11/29/2002,</li> </ul>	Aah Rah 11/29/2002(Ch ecking) is not in

class name: AccountDatabase Method Signature: public boolean close() //removing an account to the account database			
		Checking, 50	the database.
24	Closing savings account with loyalty, will remove account from database with proper info entered	Enter test case 9 info to remove this account successfully <ul style="list-style-type: none"> <li>Data: Rob, Rob, 11/13/2003, Savings, Loyal Customer, 100</li> </ul>	Rob Rob 11/13/2003(Savings) has been closed.
25	Closing savings account with loyalty, cannot remove account because it doesn't exist	Enter test case 9 info after removing the account from the database again <ul style="list-style-type: none"> <li>Data: Rob, Rob, 11/13/2003, Savings, Loyal Customer, 100</li> </ul>	Rob Rob 11/13/2003(Savings) is not in the database.
26	Closing savings account without loyalty, will remove account from database with proper info entered	Enter test case 11 info to remove this account successfully <ul style="list-style-type: none"> <li>Data: Reeb, Davis, 11/13/2003, Savings, Uncheck Loyal Customer, 100</li> </ul>	Reeb Davis 11/13/2003(Savings) has been closed.
27	Closing savings account without loyalty, cannot remove account because it doesn't exist	Enter test case 11 info after removing the account from the database again <ul style="list-style-type: none"> <li>Data: Reeb, Davis, 11/13/2003, Savings, Uncheck Loyal Customer, 100</li> </ul>	Reeb Davis 11/13/2003(Savings) is not in the database.
28	Closing money market account, will remove account from database with proper info entered	Enter test case 13 info to remove this account successfully <ul style="list-style-type: none"> <li>Data: Zee, Haas, 5/14/2002, Money Market, 2000</li> </ul>	Zee Haas 5/14/2002(Money Market) has been closed.
29	Closing money market account, cannot remove account because it doesn't exist	Enter test case 13 info after removing the account from the database again <ul style="list-style-type: none"> <li>Data: Zee, Haas, 5/14/2002, Money Market, 2000</li> </ul>	Zee Haas 5/14/2002(Money Market) is not in the database.

class name: AccountDatabase Method Signature: public boolean deposit() //add money to balance of specified account			
Test Case #	Requirement	Test Description and Input Data	Expected Result/Output
30	Deposit money into an existing account, the balance will be updated	Enter test case 13 info to match account already in database, choose any numerical amount to deposit <ul style="list-style-type: none"> <li>Data: Zee, Haas, 5/14/2002, Money Market, 300</li> </ul>	Zee Haas 5/14/2002(Money Market) Deposit - balance updated.
31	Deposit money into a non-existing account, exception will be thrown	Enter random first name, last name, dob, account type, and amount which doesn't exist in the database <ul style="list-style-type: none"> <li>Data: Que, Tal, 2/2/2002, Checking, 100000</li> </ul>	Que Tal 2/2/2002(Checking) is not in the database.

class name: AccountDatabase Method Signature: public boolean withdraw() //remove money from balance of specified account			
Test Case #	Requirement	Test Description and Input Data	Expected Result/Output
32	Withdraw money from an existing account, the balance will be updated	Enter test case 11 info to match account already in database, choose any numerical amount to withdraw as long as its within bounds <ul style="list-style-type: none"> <li>Data: Reeb, Davis, 11/13/2003, Savings, 50</li> </ul>	Reeb Davis 11/13/2003(Savings) Withdraw - balance updated.
33	Withdraw money from a non-existing account, exception will be thrown	Enter random first name, last name, dob, account type, and amount which doesn't exist in the database <ul style="list-style-type: none"> <li>Data: Como, Estas, 1/1/2001, Checking, 104</li> </ul>	Como Estas 1/1/2001(Checking) is not in the database.
34	Withdraw more money than an existing account holds, exception will be thrown	Enter test case 13 info to match account already in database, choose an amount greater than current balance <ul style="list-style-type: none"> <li>Data: Zee, Haas, 5/14/2002, Money Market, 3000</li> </ul>	Zee Haas 5/14/2002(Money Market) Withdraw - insufficient fund.

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Method Signature: public boolean printSorted() //print accounts from database sorted by account type and profile

Test Case #	Requirement	Test Description and Input Data	Expected Result/Output
35	Printing when there are no accounts in the database, will result in an exception	Go to the account database tab and click print all accounts when loading up the transaction manager.	Account Database is empty
36	Printing when accounts from test case 1, 3, and 5 are there will print them in sorted order	First open accounts from test cases 1, 3, and 5 to ensure the database is not empty. Then go to the account database tab and click print all accounts.	*Accounts sorted by account type and profile. College Checking::Jake Denim 6/22/2004::Balance \$500.00::NEW ARK College Checking::John Reese 8/15/2006::Balance \$20.00::CAMDEN College Checking::Bob Ross 1/12/2005::Balance \$1,000.00::NEW_BRUNSWICK *end of list.

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Method Signature: public boolean printFeesAndInterests() //print accounts from database with their interests and fees

Test Case #	Requirement	Test Description and Input Data	Expected Result/Output
37	Printing when there are no accounts in the database, will result in an exception	Go to the account database tab and click print interest and fees when loading up the transaction manager.	Account Database is empty
38	Printing when accounts from test case 1, 3, and 5 are there will print them in sorted order	First open accounts from test cases 1, 3, and 5 to ensure the database is not empty. Then go to the account database tab and click print interest and fees.	*list of accounts with fee and monthly interest College Checking::Jake Denim 6/22/2004::Balance \$500.00::NEW ARK::fee \$0.00::monthly interest \$0.42 College Checking::John Reese 8/15/2006::Balance \$20.00::CAMDEN::fee \$0.00::monthly interest \$0.02 College Checking::Bob Ross 1/12/2005::Balance \$1,000.00::NEW_BRUNSWICK::fee \$0.00::monthly interest \$0.83 *end of list.



class name: AccountDatabase Method Signature: public boolean printUpdatedBalances() //print accounts from database with their updated interests/fees/balances			
Test Case #	Requirement	Test Description and Input Data	Expected Result/Output
39	Printing when there are no accounts in the database, will result in an exception	Go to the account database tab and click update accounts with interests and fees when loading up the transaction manager.	Account Database is empty
40	Printing when accounts from test case 1, 3, and 5 are there will print them in sorted order	First open accounts from test cases 1, 3, and 5 to ensure the database is not empty. Then go to the account database tab and click update accounts with interests and fees.	*list of accounts with fees and interests applied. College Checking::Jake Denim 6/22/2004::Balance \$500.42::NEW ARK College Checking::John Reese 8/15/2006::Balance \$20.02::CAMDEN College Checking::Bob Ross 1/12/2005::Balance \$1,000.83::NEW BRUNSWICK *end of list.
41	Test case for Loading Accounts From File - should load all accounts from file into account database, printing them in sorted order with proper balances, interests, and fees	Download the given file "bankAccounts.txt" from Canvas. Load this file into the project using the Load Accounts From File Button in the Account Database tab. Now, clicking any of the print buttons will print all accounts in proper order with their	*list of accounts with fees and interests applied. Checking::Jason Brown 3/31/1998::Balance

class name: AccountDatabase

Method Signature: public boolean printUpdatedBalances() //print accounts from database with their updated interests/fees/balances

		respective amounts.	nce \$1,201.00 Checking::Kate Lindsey 8/31/2001::Bala nce \$438.38 Checking::April March 1/15/1987::Bala nce \$288.25 College Checking::John Doe 2/19/2000::Bala nce \$600.49::NEW _BRUNSWICK College Checking::Jane Doe 10/1/2000::Bala nce \$1,000.82::NE W_BRUNSWIC K College Checking::Duk e Ellington 11/2/2002::Bala nce \$900.75::NEW ARK College Checking::Kate Lindsey 11/2/2002::Bala nce \$200.17::CAM DEN College Checking::Chri s Young 9/20/2006::Bala nce \$500.42::NEW _BRUNSWICK Money
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Method Signature: public boolean printUpdatedBalances() //print accounts from database with their updated interests/fees/balances

			Market::Savings::Roy Brooks 10/31/2007::Balance \$2,920.62::is loyal::withdrawal 0 Money Market::Savings::Roy Brooks 10/1/2007::Balance \$2,920.62::is loyal::withdrawal 0 Money Market::Savings::Jane Doe 10/1/1995::Balance \$2,007.92::is loyal::withdrawal 0 Money Market::Savings::April March 1/15/1987::Balance \$2,509.90::is loyal::withdrawal 0 Savings::Jane Doe 10/1/1995::Balance \$1,003.33 Savings::John Doe 2/19/1990::Balance \$175.67 Savings::April March 1/15/1987::Balance \$1,505.31::is loyal *end of list.
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class name: AccountDatabase Method Signature: public boolean printUpdatedBalances() //print accounts from database with their updated interests/fees/balances			
42	Test case for Loading Accounts From File - selecting no file will result in an exception, printing a message to the text area	Go into the account database tab and click load accounts from the file. Click cancel when prompted with choosing a file.	No file selected