

Java class/method name being tested: BankTellerController			
Test Case #	Requirement	Test description and Input Data	Expected Result/Output
1.	User can't open an account when any data fields are missing	<ul style="list-style-type: none"> Try to open a savings account, with all fields empty. test data: First Name: Last Name: Date of Birth: Account Type: Initial Deposit Amount: Press "Open" <p>*This goes for opening any account</p>	"Missing data for opening an account"
2.	User can't open an account when dob data field is missing	<ul style="list-style-type: none"> Try to open a savings account, with dob empty. test data: First Name: John Last Name: Doe Date of Birth: Account Type: Savings Initial Deposit Amount: 400 Press "Open" <p>*This goes for opening any account</p>	"Missing Date of Birth."
3.	User can't open an account when deposit data field is either missing or an invalid input	<ul style="list-style-type: none"> Try to open a savings account, with the deposit field empty. test data: First Name: John Last Name: Doe Date of Birth: 7/25/1990 Account Type: Savings Initial Deposit Amount: Press "Open" <p>*This goes for opening any account</p>	"Amount can't be blank or invalid."
4.	User can't open an account when deposit data field is either missing or an invalid input	<ul style="list-style-type: none"> Try to open a savings account, with invalid deposit amount. 	"Amount can't be blank or invalid."

		<ul style="list-style-type: none"> • test data: First Name: John Last Name: Doe Date of Birth: 7/25/1990 Account Type: Savings Initial Deposit Amount: w Press "Open" <p>*This goes for opening any account</p>	
5.	User can't close an account when all data fields are missing	<ul style="list-style-type: none"> • Try to close a savings account, with all fields empty. • test data: First Name: Last Name: Date of Birth: Account Type: Press "Close" <p>*This goes for closing any account</p>	"Missing data for closing an account"
6.	User can't close an account when dob data field is missing	<ul style="list-style-type: none"> • Try to close a savings account, with dob empty. • test data: First Name: John Last Name: Doe Date of Birth: Account Type: Savings Press "Close" <p>*This goes for closing any account</p>	"Missing Date of Birth."
7.	User can open an account when all fields are valid and filled	<ul style="list-style-type: none"> • Try to open a savings account, with all valid fields. • test data: First Name: John Last Name: Doe Date of Birth: 7/25/1990 Account Type: Savings Initial Deposit Amount: 500 Press "Open" <p>*This goes for opening any account</p>	"Account opened"

8.	User can't open a same account again	<ul style="list-style-type: none"> • Try to open a savings account, with all valid fields more than once • test data: First Name: John Last Name: Doe Date of Birth: 7/25/1990 Account Type: Savings Initial Deposit Amount: 500 Press "Open" <p>*This goes for opening any account type more than once</p>	"John Doe 7/25/1990 same account(type) is in the database."
9.	User can't open a checking account if the user already opened a college checking account and vice versa	<ul style="list-style-type: none"> • Try to open a checking account, with all valid fields • test data: First Name: John Last Name: Doe Date of Birth: 7/25/1990 Account Type: Checking Initial Deposit Amount: 500 Press "Open" <p>*This is assuming user has already opened a college checking account</p>	"John Doe 7/25/1990 same account(type) is in the database."
10.	<p>User can't open an account if the initial deposit is 0 or a negative number</p> <p>*This goes for opening any account type</p>	<ul style="list-style-type: none"> • Try to open a savings account, with all valid fields more than once • test data: First Name: John Last Name: Doe Date of Birth: 7/25/1990 Account Type: Savings Initial Deposit Amount: 0 Press "Open" 	"Initial deposit cannot be 0 or negative."
11.	User can't open or reopen a money market account if initial deposit amount is < 2500	<ul style="list-style-type: none"> • Try to open a money market savings account, with deposit field less than 2500 • test data: First Name: John Last Name: Doe 	"Minimum of \$2500 to open a MoneyMarket account."

		Date of Birth: 7/25/1990 Account Type: Savings Initial Deposit Amount: 2400 Press "Open"	
12.	User can close an account if given fields are valid and match the info of the account in the database	<ul style="list-style-type: none"> • Try to close a savings account, with all valid fields. • test data: First Name: John Last Name: Doe Date of Birth: 7/25/1990 Account Type: Savings Press "Close" <p>*This goes for closing any account</p>	"Account closed"
13.	User can't close an account if it doesn't exist in the database	<ul style="list-style-type: none"> • Try to close a savings account, with new info you haven't entered before. • test data: First Name: Jane Last Name: Doe Date of Birth: 7/25/1990 Account Type: Savings Press "Close" <p>*This goes for closing any account type and if any of the fields are different, you can't close</p>	"Jane Doe 7/25/1990 Savings is not in the database."
14.	User can't close an account that has already been closed	<ul style="list-style-type: none"> • Try to close a savings account, with the same valid fields. • test data: First Name: John Last Name: Doe Date of Birth: 7/25/1990 Account Type: Savings Press "Close" 	"Account is closed already."
15.	User can reopen a closed account	<ul style="list-style-type: none"> • Try to close a College 	"Account reopened"

	<p>by clicking on open again with different or same deposit fields or campus field (only for college checking)</p> <p>*This goes for reopening any account</p>	<p>Checking account, with all valid fields.</p> <ul style="list-style-type: none"> test data: First Name: John Last Name: Doe Date of Birth: 7/25/1990 Account Type: College Checking Campus: NB Initial Deposit Amount: 600 Press "Open" <p>*This is assuming the user has closed a college checking account before</p>	
16.	<p>User can't deposit to an account when any data fields are missing</p>	<ul style="list-style-type: none"> Try to deposit to a savings account, with all fields empty. test data: First Name: Last Name: Date of Birth: Account Type: Amount: Press "Deposit" <p>*This goes for depositing to any account</p>	<p>"Missing data for depositing to an account"</p>
17.	<p>User can't deposit to an account when dob data field is missing</p>	<ul style="list-style-type: none"> Try to deposit to a savings account, with dob empty. test data: First Name: John Last Name: Doe Date of Birth: Account Type: Savings Amount: 400 Press "Deposit" <p>*This goes for depositing to any account</p>	<p>"Missing Date of Birth."</p>
18.	<p>User can't deposit to an account when deposit data field is either missing or an invalid input</p>	<ul style="list-style-type: none"> Try to deposit to a savings account, with the deposit field empty. test data: First Name: John Last Name: Doe 	<p>"Amount can't be blank or invalid."</p>

		<p>Date of Birth: 7/25/1990 Account Type: Savings Amount: Press "Deposit"</p> <p>*This goes for opening any account</p>	
19.	User can't deposit an account when deposit data field is either missing or an invalid input	<ul style="list-style-type: none"> • Try to open a savings account, with invalid deposit amount. • test data: First Name: John Last Name: Doe Date of Birth: 7/25/1990 Account Type: Savings Amount: w Press "Deposit" <p>*This goes for opening any account</p>	"Amount can't be blank or invalid."
20.	User can't deposit to an account if it doesn't exist in the database	<ul style="list-style-type: none"> • Try to deposit a Checking account, with new info you haven't entered before. • test data: First Name: Jane Last Name: Doe Date of Birth: 7/25/1996 Account Type: Checking Amount: 300 Press "Deposit" <p>*This goes for depositing to any account type and if any of the fields are different, you can't deposit</p>	"Jane Doe 7/25/1996 Checking is not in the database."
21.	User can't withdraw from an account when any data fields are missing	<ul style="list-style-type: none"> • Try to withdraw from a savings account, with all fields empty. • test data: First Name: Last Name: Date of Birth: Account Type: Amount: Press "Withdraw" 	"Missing data for withdrawing from an account"

		*This goes for opening any account	
22.	User can't withdraw from an account when dob data field is missing	<ul style="list-style-type: none"> • Try to withdraw from a savings account, with dob empty. • test data: First Name: John Last Name: Doe Date of Birth: Account Type: Savings Amount: 400 Press "Withdraw" <p>*This goes for withdrawing from any account</p>	"Missing Date of Birth."
23.	User can't withdraw from an account when withdraw data field is either missing or an invalid input	<ul style="list-style-type: none"> • Try to withdraw from a savings account, with the withdrawal field empty. • test data: First Name: John Last Name: Doe Date of Birth: 7/25/1990 Account Type: Savings Amount: Press "Withdraw" <p>*This goes for withdrawing from any account</p>	"Amount can't be blank or invalid."
24.	User can't withdraw from an account when withdraw data field is either missing or an invalid input	<ul style="list-style-type: none"> • Try to open a savings account, with invalid withdrawal amount. • test data: First Name: John Last Name: Doe Date of Birth: 7/25/1990 Account Type: Savings Amount: w Press "Withdraw" <p>*This goes for withdrawing from any account</p>	"Amount can't be blank or invalid."
25.	User can't withdraw from an	<ul style="list-style-type: none"> • Try to withdraw from a 	"John Doe 7/25/1996"

	<p>account if it doesn't exist in the database</p> <p>*This goes for withdrawing from any account type and if any of the fields are different, you can't withdraw</p>	<p>Checking account, with new info you haven't entered before.</p> <ul style="list-style-type: none"> test data: First Name: John Last Name: Doe Date of Birth: 7/25/1996 Account Type: Checking Amount: 400 Press "Withdraw" 	<p>Checking is not in the database."</p>
26.	<p>User can't withdraw from an account if the amount of withdrawal is more than the balance left in the account</p>	<ul style="list-style-type: none"> Try to withdraw from a Checking account, with withdraw amount more than the balance of the account test data: First Name: John Last Name: Doe Date of Birth: 7/25/1996 Account Type: Checking Amount: 500 Press "Withdraw" <p>*assuming the checking account already in the database has balance of \$400</p>	<p>"Withdraw - insufficient fund."</p>
27.	<p>User can't withdraw from an account if the withdraw amount is 0 or negative</p>	<ul style="list-style-type: none"> Try to withdraw from a Checking account, with withdraw amount being a 0 or negative test data: First Name: John Last Name: Doe Date of Birth: 7/25/1996 Account Type: Checking Amount: -1 Press "Withdraw" 	<p>"Withdraw - amount can't be 0 or negative."</p>
28.	<p>User can't withdraw from an account if the account is closed.</p>	<ul style="list-style-type: none"> Try to withdraw from a closed savings account, test data: First Name: John Last Name: Doe 	<p>"Cannot withdraw from a closed account."</p>

		<p>Date of Birth: 7/25/1990 Account Type: Savings Amount: 40 Press "Withdraw"</p> <p>*assuming this account has been closed</p>	
29.	User can't deposit to an account if the deposit amount is 0 or negative	<ul style="list-style-type: none"> • Try to deposit to a Checking account, with deposit amount being 0 or negative • test data: First Name: John Last Name: Doe Date of Birth: 7/25/1996 Account Type: Checking Amount: 0 Press "Deposit" 	"Deposit - amount can't be 0 or negative."
30.	User can't deposit from an account if the account is closed	<ul style="list-style-type: none"> • Try to deposit from a closed savings account, • test data: First Name: John Last Name: Doe Date of Birth: 7/25/1990 Account Type: Savings Amount: 40 Press "Deposit" <p>*assuming this account has been closed</p>	"Cannot deposit into a closed account."
31.	User can't print any of the accounts if the database is empty	<ul style="list-style-type: none"> • Try to print all accounts, print all accounts by types, print with calculated fees and interest, print with updated balance from the fees and interest • test data: Empty database Press "Print All Accounts" Press "Print All Accounts by Types" Press "Calculate Interests and Fees" Press "Apply Interests and Fees" 	"Account Database is empty!"

32.	User can print all accounts if accounts have been opened and are in the database	<ul style="list-style-type: none"> • Try to print all accounts after opening a checking, college checking, and savings account. • test data: First Name: John Last Name: Doe Date of Birth: 7/25/1996 Account Type: Checking Amount: 400 Press "Open" First Name: John Last Name: Doe Date of Birth: 7/25/1996 Account Type: Savings Amount: 400 Press "Open" First Name: Jane Last Name: Doe Date of Birth: 7/25/1996 Account Type: College Checking Campus: NB Amount: 400 Press "Open" After opening these 3 accounts, press "Print All Accounts"	*list of accounts in the database* Checking::John Doe 7/25/1996::Balance \$400.00 Savings::John Doe 7/25/1996::Balance \$400.00 College Checking::Jane Doe 7/25/1996::Balance \$400.00::NEW_BRUN SWICK *end of list*
33.	User can print all accounts by type if accounts have been opened and are in the database	<ul style="list-style-type: none"> • Try to print all accounts by type after opening a checking, college checking, savings and money market account. • test data: First Name: John Last Name: Doe Date of Birth: 7/25/1996 Account Type: Checking Amount: 400 Press "Open" First Name: John Last Name: Doe Date of Birth: 7/25/1996 Account Type: Savings	*list of accounts by account type. Checking::John Doe 7/25/1996::Balance \$400.00 College Checking::Jane Doe 7/25/1996::Balance \$400.00::NEW_BRUN SWICK Money Market Savings::Jane Doe 7/25/1996::Balance \$2,500.00::Loyal::with drawal: 0 Savings::John Doe 7/25/1996::Balance

		<p>Amount: 400 Press "Open"</p> <p>First Name: Jane Last Name: Doe Date of Birth: 7/25/1996 Account Type: College Checking Campus: NB Amount: 400 Press "Open"</p> <p>First Name: Jane Last Name: Doe Date of Birth: 7/25/1996 Account Type: Money Market Amount: 2500 Press "Open"</p> <p>After opening these 4 accounts, press "Print All Accounts by Types"</p>	<p>\$400.00 *end of list.</p>
34.	User can print all accounts with calculated interests and fees if accounts have been opened and are in the database	<ul style="list-style-type: none"> • Try to print all accounts with fees and calculated interest after opening a checking, college checking, savings and money market account. • test data: First Name: John Last Name: Doe Date of Birth: 7/25/1996 Account Type: Checking Amount: 400 Press "Open" First Name: John Last Name: Doe Date of Birth: 7/25/1996 Account Type: Savings Amount: 400 Press "Open" First Name: Jane Last Name: Doe Date of Birth: 7/25/1996 Account Type: College Checking Campus: NB 	<p>*list of accounts with fee and monthly interest Checking::John Doe 7/25/1996::Balance \$400.00::fee \$25.00::monthly interest \$0.03 College Checking::Jane Doe 7/25/1996::Balance \$400.00::NEW_BRUN SWICK::fee \$0.00::monthly interest \$0.08 Money Market Savings::Jane Doe 7/25/1996::Balance \$2,500.00::Loyal::with drawal: 0::fee \$0.00::monthly interest \$1.98 Savings::John Doe 7/25/1996::Balance \$400.00::fee \$0.00::monthly</p>

		<p>Amount: 400 Press "Open"</p> <p>First Name: Jane Last Name: Doe Date of Birth: 7/25/1996 Account Type: Money Market Amount: 2500 Press "Open"</p> <p>After opening these 4 accounts, press "Calculate Interests and Fees"</p>	<p>interest \$0.10 *end of list.</p>
35.	<p>User can print all accounts with updated balance from calculating fees and monthly interest if accounts have been opened and are in the database</p>	<ul style="list-style-type: none"> • Try to print all accounts with updated balance after fees and calculated interest after opening a checking, college checking, savings and money market account. • test data: First Name: John Last Name: Doe Date of Birth: 7/25/1996 Account Type: Checking Amount: 400 Press "Open" First Name: John Last Name: Doe Date of Birth: 7/25/1996 Account Type: Savings Amount: 400 Press "Open" First Name: Jane Last Name: Doe Date of Birth: 7/25/1996 Account Type: College Checking Campus: NB Amount: 400 Press "Open" First Name: Jane Last Name: Doe Date of Birth: 7/25/1996 Account Type: Money Market 	<p>*list of accounts with updated balance Checking::John Doe 7/25/1996::Balance \$375.03 College Checking::Jane Doe 7/25/1996::Balance \$400.08::NEW_BRUN SWICK Money Market Savings::Jane Doe 7/25/1996::Balance \$2,501.98::Loyal::with drawal: 0 Savings::John Doe 7/25/1996::Balance \$400.10 *end of list.</p>

		<p>Amount: 2500 Press "Open"</p> <p>After opening these 4 accounts, press "Apply Interests and Fees"</p>	
36.	User can print a closed account if the account was closed and in the database. This goes for all account types	<ul style="list-style-type: none"> Try to print a closed account after opening a checking and closing it test data: First Name: John Last Name: Doe Date of Birth: 7/25/1996 Account Type: Checking Amount: 400 Press "Open" <p>First Name: John Last Name: Doe Date of Birth: 7/25/1996 Account Type: Checking Press "Close"</p> <p>After opening and closing, Press "Print All Accounts"</p>	<p>*list of accounts in the database*</p> <p>Checking::John Doe 7/25/1996::Balance \$0.00::CLOSED *end of list*</p>
37.	User can print a closed account with fees and calculated interest if the account was closed and in the database. This goes for all account types	<ul style="list-style-type: none"> Try to print a closed account after opening a checking and closing it test data: First Name: John Last Name: Doe Date of Birth: 7/25/1996 Account Type: Checking Initial Deposit Amount: 400 Press "Open" <p>First Name: John Last Name: Doe Date of Birth: 7/25/1996 Account Type: Checking Press "Close"</p> <p>After opening and closing, Press "Calculate Interest and Fees"</p>	<p>*list of accounts with fee and monthly interest</p> <p>Checking::John Doe 7/25/1996::Balance \$0.00::CLOSED::fee \$0.00::monthly interest \$0.00 *end of list.</p>

38.	User can print a closed account after applied fees and calculated interest if the account was closed and in the database. This goes for all account types	<ul style="list-style-type: none"> • Try to print a closed account after opening a checking and closing it • test data: First Name: John Last Name: Doe Date of Birth: 7/25/1996 Account Type: Checking Initial Deposit Amount: 400 Press "Open" First Name: John Last Name: Doe Date of Birth: 7/25/1996 Account Type: Checking Press "Close" After opening and closing, Press "Apply Interests and Fees"	*list of accounts with updated balance Checking::John Doe 7/25/1996::Balance \$0.00::CLOSED *end of list.
39.	User can print loyalty of savings account if the user chose to be loyal when opening	<ul style="list-style-type: none"> • Try to print a closed account after opening a checking and closing it • test data: First Name: John Last Name: Doe Date of Birth: 7/25/1996 Account Type: Savings Loyalty checked Amount: 400 Press "Open" Press "Print All Accounts"	*list of accounts in the database* Savings::John Doe 7/25/1996::Balance \$400.00::Loyal *end of list*
40.	User can print loyalty of savings account with fees and calculated interest if the user chose to be loyal when opening	<ul style="list-style-type: none"> • Try to print a closed account after opening a checking and closing it • test data: First Name: John Last Name: Doe Date of Birth: 7/25/1996 Account Type: Savings Loyalty checked Amount: 400 Press "Open" Press "Calculate Interest and Fees"	*list of accounts with fee and monthly interest Savings::John Doe 7/25/1996::Balance \$400.00::Loyal::fee \$0.00::monthly interest \$0.15 *end of list.

41.	User can print loyalty of savings account after fees and calculated interest are applied if the user chose to be loyal when opening	<ul style="list-style-type: none"> • Try to print a closed account after opening a checking and closing it • test data: First Name: John Last Name: Doe Date of Birth: 7/25/1996 Account Type: Savings Loyalty checked Amount: 400 Press "Open" Press "Apply Interest and Fees" 	*list of accounts with updated balance Savings::John Doe 7/25/1996::Balance \$400.15::Loyal *end of list.
42.	User can print money market account with fees and calculated interest after 4 withdrawals if user opened it and withdrew 4 times	<ul style="list-style-type: none"> • Try to print a money market account with fees and interest after withdrawing 4 times • test data: First Name: John Last Name: Doe Date of Birth: 7/25/1996 Account Type: Money Market Initial Deposit Amount: 2500 Press "Open" First Name: John Last Name: Doe Date of Birth: 7/25/1996 Account Type: Money Market Initial Deposit Amount: 2500 Press "Withdraw" 4 times Press "Calculate Interest and Fees" 	*list of accounts with fee and monthly interest Money Market Savings::John Doe 7/25/1996::Balance \$2,484.00::withdrawal: 4::fee \$10.00::monthly interest \$1.66 *end of list.