## Test Plan

Class	Money - AG		
Method(s)	Testing For	in	out
set/getDollars()	Set / Get as expected	4	4
set/getCents()	Set / Get as expected	12	12
getFraction()	Get as expected	0.21	0.21
set/getisPositive()	Set / Get as expected	false	false
add()	adding two Money values give proper sum	4.25 + 3.75	8.00
add()	adding a positive and a negative Money value does subtraction	4.25 + -3.75	0.50
add()	add negative and negative	-4.25 + -3.75	-8.00
sub()	subtract two values	4.25 - 3.75	0.50
sub()	subtract two negative value	-4.253.75	-0.50
sub()	subtract a negative from a positive	4.253.75	8.00
sub()	subtract a positive from a negative	-4.25 - 3.75	-8.00
mult()	multiply by double gives correct value	3.33 x 1.116	toString() = 3.71
mult()	multiply by 5 small double gives correct value to 1/10	3.33 x 1.116^5	5.76 getFraction() 0.45
div()	divide by double gives correct value	3.33 / 1.116	2.98
div()	divide by 5 small double gives correct value to 1/10	3.33 / 1.116^5	1.92 getFraction() 0.36

toString()	always put 2 digits for cents	1.10	1.10
toString()	put negative if negative value	-1.00	-1.00
toString()	if value less than 1/10 away from next cent round	2.9991	3.00
isGreater()	a negative is not greater than a positive	-1, 1	false
isGreater()	a positive is greater than a negative	1, -1	true
isGreater()	a larger value is greater than a smaller value	2, 1	true
isGreater()	a larger negative is no greater than a smaller negative	-2, -1	false
absMoney()	a negative is turned into a positive	-2	2
absMoney()	a positive is left positive	2	2
round()	will round value if less than 1/10 cent away	2.991	3.00
Class	AddAccount - AG		
constructor: Customer, sessionID, Account	uses Customer to set customerID attribute	Customer, 44, null	addAccount.customer ID = 44
Class	TellerTransfer - AG		
TellerTransfer(Custo mer, sessionID, amount, toID, frID)	as expected	new TellerTransfer	instanceof Message = true
TellerTransfer(Custo mer, sessionID, amount, toID, frID)	changes lastTransaction in Account	new TellerTransfer .customer .findAccount() .getLastTransaction( ) !=	true

		original account last transaction	
TellerTransfer(Custo mer, sessionID, amount, toID, frID)	toAccount balance is increased	new TellerTransfer .customer .findAccount .getBalance() > original toAccount balance	true
TellerTransfer(Custo mer, sessionID, amount, toID, frID)	frAccount balance is decreased	new TellerTransfer .customer .findAccount .getBalance() < original frAccount balance	true
Class	Account - AG		
isPostiveStatus	as expected	true	true
isPostiveStatus	as expected	false	false
get/Set LastTransaction	as expected	lastTransaction	same
get/Set balance	as expected	0.01	0.01
get/Set opened	as expected	today	today
has/Set attachedCard	as expected	true	true
get/Set cardID	as expected	113	113
get/Set fees	as expected	set list of 3 fees	same
getID()	as expected	512	512
getType()	as expected	SAVINGS	SAVINGS
addFee()	new fee added	new fee	new fee in details()
addFee()	new fee added	new fee	ArrayList .size() > than before
findFee()	find fee by date	date	fee on same date
findFee()	does not find non	date	null

	existing fee		
removeFee()	remove fee based on date	fee	fee no longer found
removeFee()	remove fee based on date	fee	true
removeFee()	does not remove non existing fee	fee	return false
toString()	id, type, balance	511, SAVINGS, 0.01	511, SAVINGS, 0.01
Class	Customer - AG		
get/set name	as expected	Aaron Garten	same
get/set passcode	as expected	"sesame"	same
get numSavings	as expected	1	same
get numChecking	as expected	0	same
get/set opened	as expected	yesterday	same
get/set closed	as expected	today	same
get/set PIN	as expected	4321	4321
getID()	as expected	422	422
get/set Accounts	as expected	set 3 list of Accounts	same
get/set closed	as expected	today	same
addAccount()	adds an account	new Account	ArrayList <account>.s ize() larger</account>
findAccount()	finds account with id 244	244	account with id 244
findAccount()	does not find non existing account	336	null
removeAccount()	removes account	244	return true
removeAccount()	does not remove non existing account	243	return false
Class	UniquelDs - AG		
addID(int)	adds unused int	46	findID(46) true

addID(int) does not add taken int 46 false findNewID() finds untaken id findID(received) false removeID() removes present id 46 true  removeID() does not remove any id, does not exist findID(int) finds id 46 true  findID(int) finds id 46 true  Class Teller - HL  deposit() Successfully sending deposit message amount to server  withdraw() Successfully sending withdraw amount message to server  dismiss() Disconnecting from customer's account balance()  Bet customer account acc				I
removeID() removes present id 46 true removeID() does not remove any id, does not remove any id, does not exist  findID(int) finds id 46 true  findID(int) does not find id, does not exist  Class Teller - HL  deposit() Successfully sending deposit message amount to server  withdraw() Successfully sending withdraw amount message to server  dismiss() Disconnecting from customer's account Season was ended  balance() Get customer account Add a new customer account  Add a new customer account # Successfully added message  add_account Add a new customer account # Successfully added message  transfer() Customer transfer money from one account to another  new_customer() Create a new customer account  add_employee() Create new employee  Name, employeeID successfully deleted current employee  Name, employeeID  Successfully created new current employee  Successfully deleted current employee  Name, employeeID  Successfully deleted current employee	addID(int)	does not add taken int	46	false
removeID()  does not remove any id, does not exist  findID(int)  finds id  does not find id, does not exist  Class  Teller - HL  deposit()  Successfully sending deposit message amount to server  withdraw()  Successfully sending withdraw amount message to server  dismiss()  Disconnecting from customer's account  balance()  Get customer account's balance  close_account()  Close a customer account  Add a new customer account  Account #  Successfully deposited with server reply  Account # + amount will be sent back to verify withdraw  Message from server will be sent back to verify withdraw  Account # + amount will be sent back to verify withdraw  Account #  String - Account #  Bank type, and balance  Close_account()  Close a customer account #  Account #  Successfully closed message  add_account  Add a new customer account #  account #  Customer transfer money from one account to another  new_customer()  Create a new customer account  Add_employee()  Create new employee  Name, employeeID  Successfully deleted current employee  Name, employeeID  Successfully deleted current employee	findNewID()	finds untaken id		findID(received) false
id, does not exist  findID(int) finds id 46 true  findID(int) does not find id, does not exist  Class  Class  Teller - HL  deposit() Successfully sending deposit message amount to server  withdraw() Successfully sending withdraw amount message to server  dismiss() Disconnecting from customer's account seasount season was ended  balance() Get customer account's balance  close_account() Close a customer account  add_account  Account # account # Successfully closed message in server will be sent back to verify withdraw  Account # String - Account # Bank type, and balance  close_account() Close a customer account # Successfully closed message in message in server will be sent back to verify withdraw  Account # String - Account # Bank type, and balance  close_account() Close a customer account # Successfully closed message  add_account Add a new customer account # Successfully added message  transfer() Customer transfer money from one account # Amount, account #1, account #1, account #2  Customer transfer Customer ID, Name Successfully created new account  add_employee() Create new employee  Name, employeeID Successfully deleted current employee	removeID()	removes present id	46	true
findID(int) does not find id, does not exist  Class Teller - HL  deposit() Successfully sending deposit message amount to server withdraw() Successfully sending withdraw amount message to server  dismiss() Disconnecting from customer's account session  balance() Get customer account's balance  Close_account() Close a customer account  Add a new customer account # Successfully closed message transfer money from one account to another  new_customer() Create a new customer add_employee()  Create new employee  Name, employeeID  Successfully deleted current employee  Name, employeeID  Successfully deleted current employee  Name, employeeID  Successfully deposited with server reply  Account # + amount wespount # + amount wespons the position of the position server will be sent back to verify withdraw  Account # + amount wespons the position of the position server will be sent back to verify withdraw  Message from server will be sent back to verify with server reply  Message from server will be sent back to verify with server reply  Message from server will be position server will be sent back to verify withdraw  Message if session was ended  String - Account #, Bank type, and balance  Successfully closed message  Account # Successfully added message  Transfer() Customer transfer money from one account #2  Customer ID, Name  Successfully created new account  Add_employee() Create new employee  Name, employeeID, Successfully deleted current employee	removeID()		46	false
Class Teller - HL  deposit() Successfully sending deposit message amount to server  withdraw() Successfully sending withdraw amount message to server  dismiss() Disconnecting from customer's account  balance() Get customer account's balance  Close_account() Close a customer account  Add a new customer account # Account # Successfully closed message  add_account Add a new customer account # Successfully added message  transfer() Customer transfer money from one account to another  new_customer() Create a new customer add_employee()  Create a current employee() Delete a current employee  Delete a current employee()  Delete a current employee()  Account # + amount Message from server will be sent back to verify withdraw  Account # + amount Message from server will be sent back to verify withdraw  Account # + amount Message from server will be sent back to verify withdraw  Account # + amount Message from server will be sent back to verify withdraw  Account # + amount Message from server will be sent back to verify withdraw  Account # + amount Message from server will be sent back to verify withdraw  Receive success  message if session was ended  String - Account #, Bank type, and balance  Successfully closed message  Account # Successfully added message  Transfer() Customer transfer Account #1, account #2  Successfully created new account  Add_employee() Create new employee  Name, employee() Successfully deleted current employee	findID(int)	finds id	46	true
deposit()  Successfully sending deposit message amount to server  withdraw()  Successfully sending withdraw amount message to server  dismiss()  Disconnecting from customer's account  Balance()  Get customer account's balance  Close_account()  Close a customer account  Account #  Successfully sending withdraw  Account #  Send dismiss message to end session  Receive success message if session was ended  String - Account #, Bank type, and balance  Close_account()  Close a customer account #  Account #  Successfully closed message  Transfer()  Customer transfer money from one account to another  Namount, account #1, account #1 successfully transferred message  Transfer()  Create a new customer account #2  Customer ID, Name  Successfully created new account  Name, employeeID successfully cleted current employee  Successfully created new employee	findID(int)		46	false
deposit message amount to server  withdraw()  Successfully sending withdraw amount message to server  dismiss()  Disconnecting from customer's account  Balance()  Get customer account's balance  Close_account()  Close a customer account  Add a new customer account  Transfer()  Customer transfer money from one account to another  new_customer()  Create a new customer add_employee()  Create new employee  Receive success message if session was ended  Account #  Successfully closed message  Account #  Successfully added message  Amount, account #1, account #2, successfully transferred message  Customer ID, Name  Successfully created new account  Successfully closed message  Customer ID, Name  Successfully created new account  Successfully transferred message  Successfully created new account  Add_employee()  Create a current employee Successfully deleted current employee	Class	Teller - HL		
withdraw amount message to server  Disconnecting from customer's account  Balance()  Get customer account's balance  Close_account()  Close a customer account  Add a new customer account  Transfer()  Customer transfer money from one account to another  New_customer()  Create a new customer account  add_employee()  Create new employee  Pelete a current employee  Passage to end session  Receive success message if session was ended  String - Account #  Bank type, and balance  Successfully closed message  Account #  Successfully added message  Customer ID, Name  Successfully created new account  Successfully created new account  Successfully created new account  Successfully created new employee  Name, employeeID, username, loginpw  Successfully created new employee  Passage  Name, employeeID  Successfully deleted current employee	deposit()	deposit message	Account # + amount	deposited with server
customer's account message to end session message if session was ended  balance()  Get customer account's balance  Close_account()  Close a customer account # Successfully closed message  add_account  Add a new customer account # Successfully added message  transfer()  Customer transfer money from one account #2  Customer in account #2  Customer in account #3  Successfully added message  Amount, account #1, account #1, account #2  Customer in account #2  Customer in account #3  Successfully created new account  Create a new customer in account #4  Amount, account #1, account #1  Successfully created new account  Customer in account  Amount, account #3  Successfully created new account  Customer in account  Amount, account #4  Successfully created new account  Successfully created new account  Add_employee()  Create new employee  Name, employeeID  Successfully deleted current employee  Name, employeeID  Successfully deleted current employee	withdraw()	withdraw amount	Account # + amount	will be sent back to
account's balance  Bank type, and balance  Close_account()  Close a customer account # Successfully closed message  add_account  Add a new customer account # Successfully added message  transfer()  Customer transfer money from one account to another  Create a new customer account  Customer ID, Name Successfully created new account  add_employee()  Create new employee  Name, employeeID, username, loginpw  Successfully created new account  Successfully created new employee  Name, employeeID, username, loginpw  Successfully created new employee  Successfully created new employee  Successfully created new employee  Successfully created new employee	dismiss()		message to end	message if session
account  Add a new customer account # Successfully added message  transfer()  Customer transfer money from one account #2 Amount, account #1, account #2 transferred message  new_customer()  Create a new customer account  Create new employee  Name, employeeID, username, loginpw  remove_employee()  Delete a current employee  Name, employeeID  Successfully created new employee	balance()		Account #	Bank type, and
transfer()  Customer transfer money from one account #0 account #1, account #1, account #1 account #2  Create a new customer account  Create new employee  Create new employee  Delete a current employee  Name, employeeID  Successfully created new account  Successfully created new account  Successfully created new employee  Name, employeeID, username, loginpw  Successfully created new employee  Successfully deleted current employee	close_account()		Account #	· ·
money from one account #2 transferred message  new_customer()  Create a new customer account  Create new employee  Name, employeeID, username, loginpw  Delete a current employee  Name, employeeID  Successfully created new employee  Successfully created new employee  Successfully created new employee  Name, employeeID  Successfully deleted current employee	add_account		Account #	1
customer account  add_employee()  Create new employee  Name, employeeID, username, loginpw  Pelete a current employee  Name, employeeID  Successfully created new employee  Successfully deleted current employee	transfer()	money from one		,
remove_employee()  Delete a current employee  Name, employeeID  Successfully deleted current employee	new_customer()		Customer ID, Name	
employee current employee	add_employee()	Create new employee		
online() Sends message to Online message Successfully turned	remove_employee()		Name, employeeID	
<u> </u>	online()	Sends message to	Online message	Successfully turned

	turn on server		on message
shutdown()	Supervisor sends shutdown message to turn off server	Shutdown message	Server will be turned off, connections will be shut off
convertMoney()	Changing string numbers into dollars double and pennies	double amount	Converted money into dollars and pennies
save()	Saving files with file handler	Save message	Files will be saved
access()	Employee will access a customer account	Customer id, pw	Success message
Class	CustomerFileHandler	- DO	
save(User user)	Verify if a customer is being saved into list then file	User user	Updated Customer information
parse()	Read Customer files and store into ArrayList	Read Customer csv file and split lines Into customer sections.	Each line in csv will be split and stored into ArrayList List = [noofcustomers, name etc]
Class	EmployeeFileHandler	- HL	
parse()	Read employee files and store into ArrayList	Read employee csv file and split lines Name, Username, Password	Each line in csv will be split and stored into ArrayList List = [Name, Username, Password]
save(Employee employee)	Save new employee into list then file	Employee employee	Updated cvs Name, username, password
Class	ATM - DO		
login()	Verify if an ATMuser will be able to login with a valid Card ID and pin	Card ID: 567890 Pin: 1234	Successful Login
login()	Verify if an ATM user will NOT be able to	Card ID: 845798 Pin: 1435	Unsuccessful Login

login with a invalid Card ID and pin		
Verify if ATM user will NOT be able to login with an empty login field.	Card ID: " " Pin: " "	Unsuccessful Login
Verify if an ATMUser will be able to deposit more than \$0 and less than \$5000	Deposit amount: \$200	Successful
Verify if an ATM User will be able to deposit more than \$5000	Deposit amount: \$7000	Unsuccessful
Verify if an ATM user will be able to deposit less than \$0	Deposit amount: \$-300	Unsuccessful
Verify messages for successful and unsuccessful deposits	Successful Unsuccessful	"Deposit successful" "Deposit not successful"
Verify if an ATM User will be able to withdraw from an account with sufficient funds	Account balance: \$500 Withdrawal amount: \$200	Successful. Account balance: \$300
Verify if an ATM User will be able to withdraw from an account with money but not enough to cover entire withdrawal.	Account balance: \$500 Withdrawal amount: \$600	Successful Account balance: -\$100
Verify if an ATM user will be able to withdraw from an overdrafted account.	Account balance: -\$100 Withdrawal amount: \$200	Unsuccessful
Verify messages for successful and unsuccessful withdrawals	Successful Unsuccessful	"Withdrawal successful" "Withdrawal not successful"
Verify if an ATM User will be able to transfer	Source account balance: \$500	Successful. Source account
	Verify if ATM user will NOT be able to login with an empty login field.  Verify if an ATMUser will be able to deposit more than \$0 and less than \$5000  Verify if an ATM User will be able to deposit more than \$5000  Verify if an ATM user will be able to deposit less than \$0  Verify messages for successful and unsuccessful deposits  Verify if an ATM User will be able to withdraw from an account with sufficient funds  Verify if an ATM User will be able to withdraw from an account with money but not enough to cover entire withdrawal.  Verify if an ATM user will be able to withdraw from an account with money but not enough to cover entire withdrawal.  Verify if an ATM user will be able to withdraw from an overdrafted account.  Verify messages for successful and unsuccessful and unsuccessful withdrawals  Verify if an ATM User	Card ID and pin  Verify if ATM user will NOT be able to login with an empty login field.  Verify if an ATMUser will be able to deposit more than \$0 and less than \$5000  Verify if an ATM User will be able to deposit more than \$5000  Verify if an ATM user will be able to deposit more than \$5000  Verify if an ATM user will be able to deposit less than \$0  Verify messages for successful and unsuccessful deposits  Verify if an ATM User will be able to withdraw from an account with sufficient funds  Verify if an ATM User will be able to withdraw from an account with money but not enough to cover entire withdrawal.  Verify if an ATM user will be able to withdraw from an account with money but not enough to cover entire withdrawal.  Verify if an ATM user will be able to withdraw from an account with money but not enough to cover entire withdrawal.  Verify if an ATM user will be able to withdraw from an overdrafted account.  Verify messages for successful and unsuccessful withdrawals  Verify if an ATM User Source account

	from an account with sufficient funds	Target account balance: \$500 Transfer amount: \$200	balance: \$300 Target account balance: \$700
transferFunds()	Verify if an ATM User will be able to transfer from an account with money but not enough to cover entire withdrawal.	Source account balance: \$100 Target account balance: \$500 Transfer amount: \$200	Successful. Source account balance: -\$100 Target account balance: \$700
transferFunds()	Verify if an ATM user will be able to transfer from an overdrafted account.	Source account balance: -\$100 Target account balance: \$500 Transfer amount: \$200	Unsuccessful
transferFunds	Verify if target account ATM User wants to send money to exists.	Target CheckingID: 567890	Account exists
transferFunds	Verify if target account ATM User wants to send money to does not exist.	Target CheckingID: 5432efre	Account does not exist.
viewBalance()	Verify if account balance displayed is correct	Account balance: \$400	Account balance shown: \$400
dispenseCash()			
logout()	Verify if ATMUser will be allowed to logout after he/she has logged in.	login() then logout()	Successful
logout()	Verify if an ATM user will be allowed to logout when he/she has NOT logged in	logout()	Unsuccessful
Class	ATMUser - Dolu		
set/getATMUserID()	Set / Get as expected	setATMUserID(345)	getATMUserID() = 345
set/getCheckingID()	Set / Get as expected	setCheckingID(345)	getCheckingID() = 345

set/getSavingsID()	Set / Get as expected	setSavingsID(345)	getSavingsID() = 345
set/getATMpin()	Set / Get as expected	setATMpin(1100)	getATMpin() = 1100
is/setCheckingPositiv e()	Set / Get as expected	setCheckingPositive( true)	isCheckingPositive() = true
is/setSavingsPositive ()	Set / Get as expected	setSavingsPositive(tr ue)	isSavingsPositive() = true
Class	Employee - Dolu		
set/getName()	Set / Get as expected	setName("Dolu")	getName() = "Dolu"
set/getEmployeeID()	Set / Get as expected	setEmployeeID(1234	getName() = 1234
set/getLoginpwd()	Set / Get as expected	setLoginPwd("doluo dumosu")	getLoginPwd() = "doluodumosu"
set/getType()	Set / Get as expected	setType(EMPLOYEE )	getType() = EMPLOYEE
set/getLoginUsernam e()	Set / Get as expected	setLoginUsername(" dolu123")	getLoginUsername() = "dolu123"
Employee(String name, String loginusername, String loginpwd)	Verify if constructors work	Employee("Dolu", "dolu123", "doluodumosu")	Name = "Dolu" Loginusername = "dolu123" Loginpwd = "doluodumosu"
Employee(String name, int employeeID, String loginpwd)	Set / Get as expected	Employee("Dolu", 123, "dolu123", "doluodumosu", EmployeeType.EMP LOYEE)	Name = "Dolu" employeeID = 123 Loginusername = "dolu123" Loginpwd = "doluodumosu" EmployeeType = EMPLOYEE