

**CLASS:** MainGame

METHOD	#	DESCRIPTION	SAMPLE INPUT / STATUS	EXPECTED OUTPUT	ACTUAL OUTPUT	P/F
preliminaryStart()	1	Input number of players is outside valid input (2-3)	4	Invalid input	Invalid input	P
		Number of players instantiated is equal to input number of players	2	<Upon enter to Phase1Game, show Player 1 and Player 2 turns before cycling back to Player 1>	<Program shows Player 1 turn, then Player 2 turn, before cycling back to Player 1>	P
		Each player's career is pre-defined (will obviously change during phase 2)	N/A (Provided at program run)	<Each player's career is Athlete (String)>	<Each player's career is Athlete (String)>	P
generateDeckOfActionCards()	2	20 Collect From Bank and 20 Pay The Bank action cards are instantiated	N/A (Provided at program run)	<20 Action cards with ID 0 and 20 Action cards with ID 1 is added into ArrayList<ActionCards>>	<20 Action cards with ID 0 and 20 Action cards with ID 1 is added into ArrayList<ActionCards>>	P
		5 Pay The Player and 5 Collect From Player action cards are instantiated	N/A (Provided at program run)	<5 Action cards with ID 2 and 5 Action cards with ID 3 is added into ArrayList<ActionCards>>	<5 Action cards with ID 2 and 5 Action cards with ID 3 is added into ArrayList<ActionCards>>	P
		Cards generated are immediately shuffled before the start of the first game.	N/A (Provided at program run)	<Cards are shuffled and its order is unique every launch of the program>	<Cards are shuffled and its order is unique every launch of the program>	P
		With -ac argument, user specifies at what index to start drawing an action card (before the first round starts)	10	<Action card starts drawing at index 9, upon drawing all cards reshuffle, start at index 49>	<Action card starts drawing at index 9, upon drawing all cards reshuffle, start at index 49>	P
displayActionCards(ArrayList<ActionCard> deck)	3	On program run, this method is called to show the generated shuffled action cards.	N/A (Provided at program run)	Action Cards generated (uses stack implementation): LAWSUIT, SETUP SCHOOL, BONUS PAYDAY, SETUP SCHOOL, SELL AN ITEM, WATCH A SHOW, SETUP SCHOOL, IT'S YOUR BIRTHDAY!, WATCH A SHOW, BUY AN ITEM!, WIN A COMPETITION, TAX REFUND, TAX REFUND, WRITE A BOOK, VISIT A PLACE, WIN A COMPETITION, HIKING, FILE A LAWSUIT!, SETUP SCHOOL, IT'S YOUR BIRTHDAY!, SETUP SCHOOL, HIKING, HIKING, SELL AN ITEM, WIN A	Action Cards generated (uses stack implementation): LAWSUIT, SETUP SCHOOL, BONUS PAYDAY, SETUP SCHOOL, SELL AN ITEM, WATCH A SHOW, SETUP SCHOOL, IT'S YOUR BIRTHDAY!, WATCH A SHOW, BUY AN ITEM!, WIN A COMPETITION, TAX REFUND, TAX REFUND, WRITE A BOOK, VISIT A PLACE, WIN A COMPETITION, HIKING, FILE A LAWSUIT!, SETUP SCHOOL, IT'S YOUR BIRTHDAY!, SETUP SCHOOL, HIKING, HIKING, SELL AN ITEM, WIN A COMPETITION, TAX	P

				COMPETITION, TAX REFUND, WRITE A BOOK, WATCH A SHOW, TRAFFIC VIOLATION, BUY AN ITEM!, BUY AN ITEM!, LAWSUIT, HIKING, LAWSUIT, SETUP SCHOOL, WIN A COMPETITION, WRITE A BOOK, VISIT A PLACE, LAWSUIT, SETUP SCHOOL, SETUP SCHOOL, SELL AN ITEM, FILE A LAWSUIT!, BONUS PAYDAY, WATCH A SHOW, BUY AN ITEM!, HIKING, LAWSUIT, FILE A LAWSUIT!, TAX REFUND,	REFUND, WRITE A BOOK, WATCH A SHOW, TRAFFIC VIOLATION, BUY AN ITEM!, BUY AN ITEM!, LAWSUIT, HIKING, LAWSUIT, SETUP SCHOOL, WIN A COMPETITION, WRITE A BOOK, VISIT A PLACE, LAWSUIT, SETUP SCHOOL, SETUP SCHOOL, SELL AN ITEM, FILE A LAWSUIT!, BONUS PAYDAY, WATCH A SHOW, BUY AN ITEM!, HIKING, LAWSUIT, FILE A LAWSUIT!, TAX REFUND,	
phase1Game(int turn)	4	Round 1 turn, display Player 1 status (No card has been drawn yet)	N/A	PLAYER 1's turn!   MONEY: 200000.0   LOAN: 0.0	PLAYER 1's turn!   MONEY: 200000.0   LOAN: 0.0	P
		At round 1, Player 1 drawn action card is WIN A COMPETITION (\$30000 deducted)	N/A	Action card drawn: WIN A COMPETITION Put your skills to the test!  \$20000 deducted from Player 1 Updated current MONEY: 170000.0	Action card drawn: WIN A COMPETITION Put your skills to the test!  \$20000 deducted from Player 1 Updated current MONEY: 170000.0	P
		At end of each round, increment player turn	N/A (current turn is player 1)	<Proceed next turn for player 2>	<Proceed next turn for player 2>	P
		At round 2, Player 2 draws action card LAWSUIT (\$30000 deducted to chosen player) to player 3	3	PLAYER 2's turn!   MONEY: 200000.0   LOAN: 0.0 Action card drawn: LAWSUIT Settle a case!  Choose player number to pay: 3 Updated current MONEY: \$170000.0 ----- PLAYER 3's turn!   MONEY: 230000.0   LOAN: 0.0	PLAYER 2's turn!   MONEY: 200000.0   LOAN: 0.0 Action card drawn: LAWSUIT Settle a case!  Choose player number to pay: 3 Updated current MONEY: \$170000.0 ----- PLAYER 3's turn!   MONEY: 230000.0   LOAN: 0.0	P
		Draw an action card, deck not yet empty	N/A (Automatic, top of the card is FILE A LAWSUIT!)	<Drawn card is FILE A LAWSUIT>	<Drawn card is FILE A LAWSUIT>	P
		Drawn an action card,	N/A (Last card on the	DECK RAN OUT! Cards	DECK RAN OUT! Cards to	P

		deck is about to become empty	<i>deck is SELL AN ITEM)</i>	to be automatically reshuffled at NEXT turn.	be automatically reshuffled at NEXT turn.	
		Drawn action card deducts a player's money, player's money is not enough  Drawn card is WIN A COMPETITION (deduct \$30000.00) and current player's balance is \$20000.00	N/A (Handled by the program)	Warning! A loan added to current player. Make sure to pay it back. Updated current loan and interest total is now 25000.0 \$30000 deducted from Player 1 Updated current MONEY: 10000.0`	Warning! A loan added to current player. Make sure to pay it back. Updated current loan and interest total is now 25000.0 \$30000 deducted from Player 1 Updated current MONEY: 10000.0	P
drawDeck()	5	Draw the top most card from the deck. Deck is not empty	N/A	<The top most card from the deck is drawn.>	<The top most card from the deck is drawn.>	P
		Draw the top most card from the deck. Deck is empty.	N/A	DECK RAN OUT! Cards to be automatically reshuffled at NEXT turn.	DECK RAN OUT! Cards to be automatically reshuffled at NEXT turn.	P

**CLASS:** Player

METHOD	#	DESCRIPTION	SAMPLE INPUT	EXPECTED OUTPUT	ACTUAL OUTPUT	P/F
addMoneyBalance(double amount)	3	Adds amount to the current money balance of the player	30000.00	<30000.00 is added to the current balance of the player>	<30000.00 is added to the current balance of the player>	P
		Adds amount to the current money balance of the player	50000.00	<50000.00 is added to the current balance of the player>	<50000.00 is added to the current balance of the player>	P
		Adds amount to the current money balance of the player	2000.00	<2000.00 is added to the current balance of the player>	<2000.00 is added to the current balance of the player>	P
addLoan()	4	Player 1 currently has \$20000 balance, draws VISIT A PLACE (deduct \$30000)	N/A	Warning! A loan added to a player. Make sure to pay it back. Updated loan and interest for a player total is now 25000.0 \$30000 deducted from Player 1 Updated current MONEY: 10000.0	Warning! A loan added to a player. Make sure to pay it back. Updated loan and interest for a player total is now 25000.0 \$30000 deducted from Player 1 Updated current MONEY: 10000.0	P
		Player 1 needs to make more than one loan to pay the other players. Drawn card is	N/A	Warning! A loan added to a player. Make sure to pay it back. Updated loan and	Warning! A loan added to a player. Make sure to pay it back. Updated loan and interest	P

		CHRISTMAS BONUS (Pay all players \$30000)		interest for a player total is now 25000.0 PAID Player 2 \$30000.00 Warning! A loan added to a player. Make sure to pay it back. Updated loan and interest for a player total is now 50000.0 PAID Player 3 \$30000.00 Updated current MONEY: \$0.0	for a player total is now 25000.0 PAID Player 2 \$30000.00 Warning! A loan added to a player. Make sure to pay it back. Updated loan and interest for a player total is now 50000.0 PAID Player 3 \$30000.00 Updated current MONEY: \$0.0	
reduceMoneyBalance(double amount)	5	Subtracts amount to the current money balance of the player. If the amount goes lower than 0, addLoan() will be called. Balance is currently at \$200000.00	40000.00	<40000.00 is subtracted from the balance of the player>	<40000.00 is subtracted from the balance of the player>	P
		Subtracts amount to the current money balance of the player. If the amount goes lower than 0, addLoan() will be called. Balance is currently at \$200000.00	200000.00	\$0.00 balance left	\$0.00 balance left	P
		Subtracts amount to the current money balance of the player. If the amount goes lower than 0, addLoan() will be called. Balance is currently at \$200000.00	220000.00	<Method calls payLoan(), adds \$20000 loan and \$5000 interest to player, update current balance \$0.0>	<Method calls payLoan(), adds \$20000 loan and \$5000 interest to player, update current balance \$0.0>	P
setCareer()	6	Career is predefined as "Athlete"	N/A	Player career: Athlete	Player career: Athlete	P

**CLASS:** ActionCard

METHOD	#	DESCRIPTION	SAMPLE INPUT	EXPECTED OUTPUT	ACTUAL OUTPUT	P/F
generateSubID()	7	Collect From Bank cards get subID from 0 to 4	N/A	<Generated Collect From Bank cards get subID ranges from 0 to 4>	<Generated Collect From Bank cards get subID ranges from 0 to 4>	P
		Pay The Bank cards get subID from 0 - 5	N/A	<Generated Pay The Bankcards get subID	<Generated Pay The Bankcards get subID	P

				<i>ranges from 0 to 5&gt;</i>	<i>ranges from 0 to 5&gt;</i>	
		Pay The Player cards get subID from 0-1	N/A	<Generated Pay The Player get subID ranges from 0 to 1>	<Generated Pay The Player get subID ranges from 0 to 1>	P
		Collect From Player cards get subID from 0-1	N/A	<Generated Collect From Player get subID ranges from 0 to 1>	<Generated Collect From Player get subID ranges from 0 to 1>	P
assignDescriptions()	8	Assign appropriate description for a particular Collect From Bank card	MainID : 0 subID : 0	TypeOfCard = TAX REFUND Description: Get your money back from the taxpayers! toDoAction: Collect \$30000 From The Bank	TypeOfCard = TAX REFUND Description: Get your money back from the taxpayers!	P
		Assign appropriate description for a particular Pay The Bank card	MainID : 1 subID : 1	TypeOfCard: VISIT A PLACE Description: Go spend some good time in a good place! toDoAction: Pay \$30000 To The Bank	TypeOfCard: VISIT A PLACE Description: Go spend some good time in a good place!	P
		Assign appropriate description for a particular Pay The Player card	MainID : 2 subID : 0	TypeOfCard: LAWSUIT Description: Settle a case toDoAction: Choose A Player, then Pay \$30000	TypeOfCard: LAWSUIT Description: Settle a case toDoAction: Choose A Player, then Pay \$30000	P
doAction(Player[] players, int turn, int numberOfPlayersInGame)	9	Drawn card is a Collect From Player card	Drawn card is File a Lawsuit	PLAYER 1's turn!   MONEY: 230000.0   LOAN: 0.0 Action card drawn: FILE A LAWSUIT! Bring them to court! Updated current MONEY: \$260000.0	PLAYER 1's turn!   MONEY: 230000.0   LOAN: 0.0 Action card drawn: FILE A LAWSUIT! Bring them to court! Updated current MONEY: \$260000.0	P
		Drawn card is a Collect From Bank card	Drawn card is Tax Refund	PLAYER 1's turn!   MONEY: 200000.0   LOAN: 0.0  INTEREST: 0.0 Action card drawn: TAX REFUND Get your money back from the taxpayers!  \$30000 added to Player 1 Updated MONEY: 230000.0	PLAYER 1's turn!   MONEY: 200000.0   LOAN: 0.0  INTEREST: 0.0 Action card drawn: TAX REFUND Get your money back from the taxpayers!  \$30000 added to Player 1 Updated MONEY: 230000.0	P
		Drawn card is a Pay The Bank card	Drawn card is Traffic Violation	PLAYER 1's turn!   MONEY: 200000.0   LOAN: 0.0  INTEREST: 0.0	PLAYER 1's turn!   MONEY: 200000.0   LOAN: 0.0  INTEREST: 0.0	P

				Action card drawn: TRAFFIC VIOLATION Oopsies! No escaping the law!  \$30000 deducted from Player 1 Updated current MONEY: 170000.0	Action card drawn: TRAFFIC VIOLATION Oopsies! No escaping the law!  \$30000 deducted from Player 1 Updated current MONEY: 170000.0	
top(ArrayList<ActionCard> deck)	10	Return the current top most card pointed by the head (49)	Head currently points at card WATCH A SHOW	<Method returns card WATCH A SHOW>	<Method returns card WATCH A SHOW>	P
		Return the middle card (24)	Head currently points at card FILE A LAWSUIT	<Method returns card FILE A LAWSUIT>	<Method returns card FILE A LAWSUIT>	P
		Return the last card (0)	Head currently points at card IT'S YOUR BIRTHDAY	<Method returns card IT'S YOUR BIRTHDAY>	<Method returns card IT'S YOUR BIRTHDAY>	P
pop((ArrayList<ActionCard > deck)	11	Return the current top most card set by the head, head does not point at the last card	Head currently points at card SETUP SCHOOL	<Method returns card SETUP SCHOOL, head is decremented>	<Method returns card SETUP SCHOOL, head is decremented>	P
		Return the current top most card set by the head, head points at the last card	Head currently points at the last card of the Action Card deck	DECK RAN OUT! Cards to be automatically reshuffled at NEXT turn. <Action cards are reshuffled, and head value is resetted>	DECK RAN OUT! Cards to be automatically reshuffled at NEXT turn <Action cards are reshuffled, and head value is resetted>.	P
		Return the current top most card set by the head, head points at the middle card	Head currently points at card TRAFFIC VIOLATION	<Method returns card TRAFFIC VIOLATION, head is decremented>	<Method returns card TRAFFIC VIOLATION, head is decremented>	P
setHead	12	Set head at user-specified value within valid range (1-50)	-ac terminal argument  2	Head is set at 2.	Head is set at 2.	P
		Set head at user-specified value outside valid range (1-50)	-1	<Program exits with return status -1>	<Program exits with return status -1>	P
		-ac terminal argument is not specified on program run	N/A	<Method is never called>	<Method is never called>	P
getMainID	13	Card is TAX REFUND	Current MainID is 0	Returned value is 0	Returned value is 0	P
		Card is HIKING	Current MainID is 1	Returned value is 1	Returned value is 1	P
getTypeOfCard	14	Card is LAWSUIT	Current typeOfCard	Choose A Player, then	Choose A Player, then Pay	P

			value is Choose A Player, then Pay \$30000	Pay \$30000	\$30000	
		Card is IT'S YOUR BIRTHDAY	Current typeOfCard value is Collect \$30000 From Each Players	Collect \$30000 From Each Players	Collect \$30000 From Each Players	P
toString()	15	Card is TRAFFIC VIOLATION	N/A	TRAFFIC VIOLATION Oopsies! No escaping the law!	TRAFFIC VIOLATION Oopsies! No escaping the law!	P
		Card is CHRISTMAS BONUS	N/A	CHRISTMAS BONUS Wish all a happy Merry Christmas!	CHRISTMAS BONUS Wish all a happy Merry Christmas!	P