<Music Streaming Service> Use case description

Name:	Sign In
Actor:	User
Description:	User of the music service signs his account in the music streaming service
Pre-condition:	User has an account
Scenario:	1.Actor accesses the music streaming service. 2.Actor chooses to sign in. 3.System shows the sign in page. 4.Actor enters sign in details. 5.Actor chooses to submit the information to sign in. 6.System checks if the information is valid. 7.System logs the actor in. 8.System informs that the actor has logged in
Result:	User has signed in successfully in the music streaming service
Exceptions:	6 Username is not correct. 6.1 Use case ends here. 6 Password is not correct. 6.1 Use case ends here.

Name:	Search music
Actor:	User
Description:	User of the music service searches for music
Pre-condition:	User must sign in first
Scenario:	1.Actor signs in. 2.Actor searches for a music. 3.System shows all the matching options. 4.Actor chooses music he/she wants.
Result:	User has found the songs he(she) wanted to see.
Exceptions:	2 Actor searches for unavailable song. 2.1 System displays no song. Use case ends here.

Name:	Play music
Actor:	User
Description:	User plays a song on the system
Pre-condition:	User must sign in first
Scenario:	1. Actor signs in. 2. Actor searches music. 3. Actor chooses to play music. 4. System plays the music for the actor

Result:	User has played the music he(she) wanted to play
Exceptions:	None

Name:	Create personal playlist
Actor:	User
Description:	User makes a personal playlist on his(her) account
Pre-Condition:	User must sign in first
Scenario:	1.User signs in. 2.Actor chooses to make a playlist. 3.System provides the option of creating a new playlist 4.System provides the proper input fields for creating a table. 5.Actor chooses details of the playlist. 6.User creates a playlist.
Result:	A new playlist is added to the account
Exceptions:	5.Actor does not give a name to the playlist. 5.1 The playlist defaults to being named “Untitled Playlist”.

Name:	Edit personal playlist
Actor:	User
Description:	User changes the specifics of a previously created playlist
Pre-condition:	User has an account Users account has a previously created playlist
Scenario:	1.User signs in. 2.User chooses to look at his playlist. 3.System shows the list of playlists. 4.User chooses a playlist to edit. 5.System offers the options to edit the playlist.
Result:	The playlist has been edited in an appropriate way for the actor’s purposes
Exceptions:	None

Name:	View personal playlist
Actor:	User
Description:	User views a personal playlist from his(her) account
Pre-condition:	User has an account. User’s account has a playlist to view.
Scenario:	1.User signs in. 2.User chooses to look at his playlists. 3.System shows the list of playlists. 4.User clicks the name of a playlist that he(she) wants to view. 5.System will redirect user to the playlists page. 6.User views playlist.

Result:	User can view a playlist of his(her) preference
Exceptions:	None

Name:	Show list of personal top played songs
Actor:	User
Description:	User views a list of the topmost played songs on an account
Pre-condition:	User has an account. Multiple songs were played on the account.
Scenario:	1.User signs in. 2.User chooses to go to the page dedicated to the most played song lists. 3.System offers the user the option to choose a certain subgroup of most played songs. 4.User chooses the “Personal Most Played” option. 5.System shows a list of the personal most played songs on the account.
Result:	User sees the most played songs on the account
Exceptions:	None

Name:	Show lists of country-specific top played songs
Actor:	User
Description:	User views a list of the topmost played songs in a country
Pre-condition:	User has an account
Scenario:	1.User signs in. 2.User chooses to go to the page dedicated to the most played song lists. 3.System offers the user the option to choose a certain subgroup of most played songs. 4.User chooses the “By country” option. 5.System shows the user the option to choose a country. 6.User chooses a country. 7.System shows the list of most played songs in the selected country.
Result:	User sees the most played songs in the country.
Exceptions:	None

Use case diagram

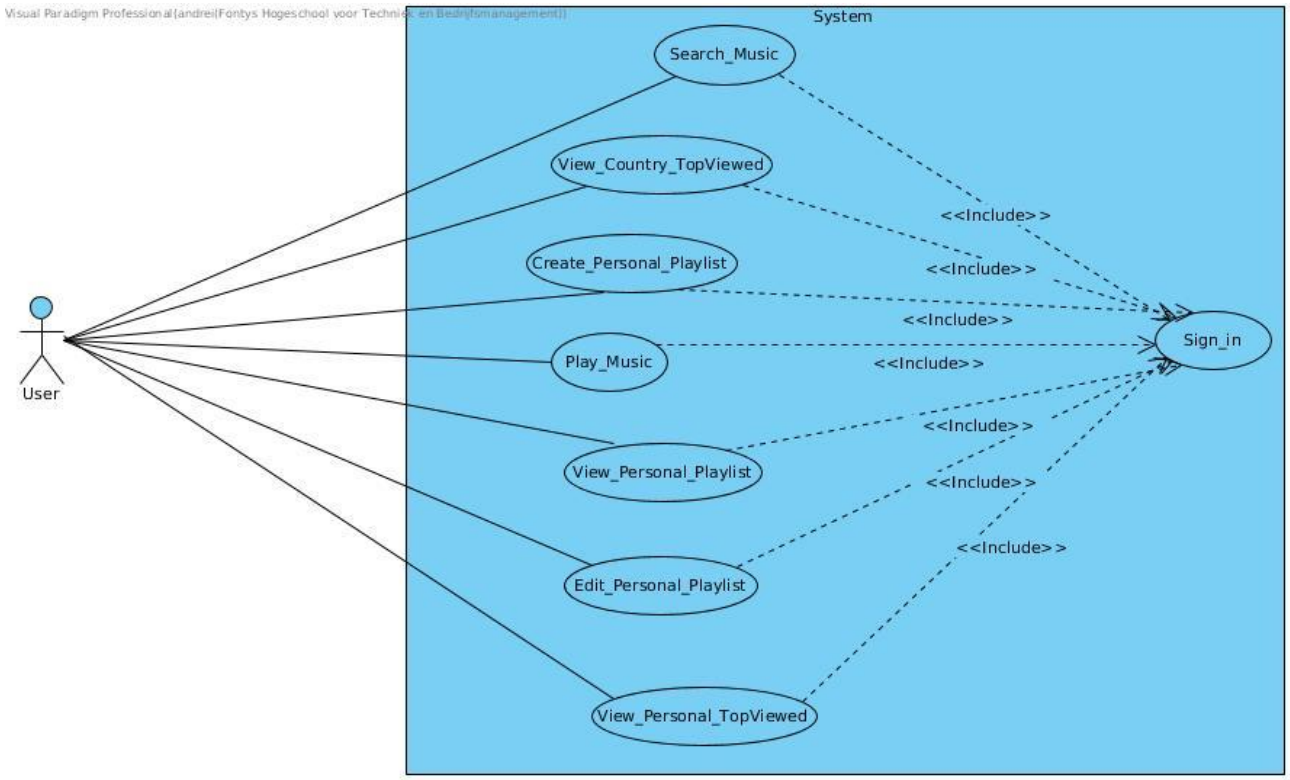

Figure 1. use case diagram of music streaming service

Domain model

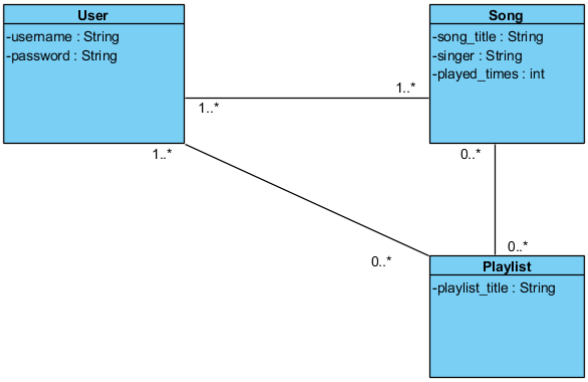

Figure2. Domain model of music streaming service

<Automatic teller machine (ATM)> Use case description

Name:	Insert bank card and entering the correct pin code
Actor:	User
Description:	A user inserts his/her bank card into an ATM machine and enter the correct pin code
Pre-condition:	User has a bank card
Scenario:	1. Actor accesses to the ATM machine 2. Actor inserts bank card 3. System reads bank card and connects it to the bank system 4. System asks actor for the pin code 5. Actor enters pin code 6. System informs actor that it is checking if the pin code is correct 7. System logs the actor in 8. System informs that the actor has logged in successfully
Results:	The user has logged in successfully
Exceptions:	3. Bank card is invalid. 3.1 Use case ends here. 6. Pin code is incorrect. 6.1 Use case ends here.

Name:	Withdraw money
Actor:	User
Description:	A user wants to withdraw money at the ATM machine with a bank card
Pre-conditions:	User has a bank card
Scenario:	1. Actor inserts bank card and entering the correct pin code 2. System displays available service options on the machine 3. Actor selects to withdraw money 4. System asks actor to choose which account to withdraw 5. Actor selects an account 6. System displays the list of standard withdrawal amounts. 7. System asks actor for the amount to withdraw 8. Actor enters the amount to withdraw 9. The ATM sends the card id, PIN, amount and account to the Bank system. The Bank system replies that the transaction is accepted. 10. System informs that it is dispensing the money for the actor 11. System dispenses money to the actor. 12. Actor gets the money 13. System displays how much the user have left in the account. 14. System asks actor if a receipt is desired. 15. Actor indicates that he/she wants no receipt. 16. System asks the actor if he/she want to continue another transaction.

	17. Actor indicates he/she does not want to do anything else 18.System logs the actor out 19. System returns user's bank card.
Results:	The user can withdraw money successfully
Extension:	15.a User indicates that he/she wants a receipt 1. System prints out the receipt for customer. Return step 16 16. User indicate he/she wants to continue other transaction. Return step 2
Exceptions:	9.1 Amount requested is more than money available. System informs cancelation the transaction. Return to step 2 9.2 Not enough money in account. System informs cancelation. Return step 2 9.3 Wrong account. System informs cancelation. Return step 2 9.4 Out of money in ATM machine. Use case ends here. 11.1 Error when dispensing cash. Use case ends here. 12.1 Money never removed from tray. Use case ends here.

Name:	Check balance
Actor:	User
Description:	User checks their bank balance at the ATM machine
Pre-conditions:	User has a bank card
Scenario:	1. Actor inserts bank card and entering the correct pin code 2. System displays available service options on the machine 3. Actor choose to check the balance 4. System asks actor to choose which account that the actor wants to check for the balance. 5. Actor indicates the account 6. System connects the bank account to the bank system 7. System displays the current account balance 8. System asks if the actor wants to start other transaction 9. Actor indicate that he/she does not want to do other transaction 10. System logs the actor out 11. System returns the card back to the user.
Results:	User can know the current balance of the bank account
Extensions:	9a. User indicates that he/she wants to start another transaction. Returns to step 2.
Exceptions:	none

Name:	Change pin code
Actor:	user
Description:	User changes their pin code at the ATM machine
Pre-conditions:	User has a bank card
Scenario:	1. Actor inserts bank card and entering the correct pin code 2. System displays available service options on the machine 3. Actor chooses to change pin code 4. System asks the actor to enter the current pin code 5. Actor enters the current pin code 6. System asks the actor to enter a new pin code

	7. Actor enters the new pin code 8. System asks actor to re-enter the new pin code again 9. Actor re-enters the new pin code 10. System checks if the two pin codes are matched 11. System updated the new pin code has been changed 12. System informs the actor that the pin code has been updated. 13. System asks if the actor wants to start another transaction 14. Actor indicate he/she does not want to start other transaction 15. System returns actor's card
Results:	User changes his/her pin code successfully
Extensions:	14a. User indicates that he/she wants to start another transaction. Return step 2.
Exceptions:	5.1 System checks that the actor has entered the incorrect pin code. Return step 2 10.1 The two pin codes entered are not matched. Return step 6

Use case diagram

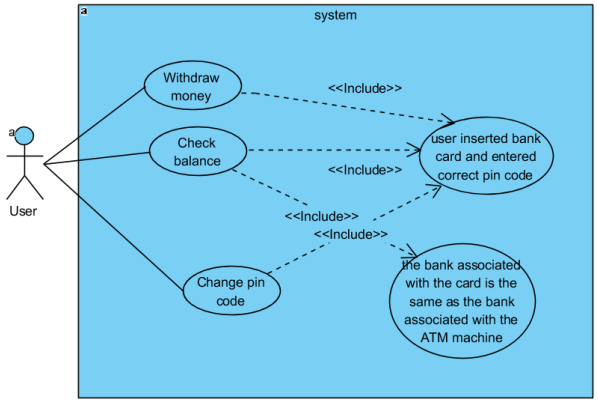

Figure 3. Use case diagram of automatic teller machine

Domain model

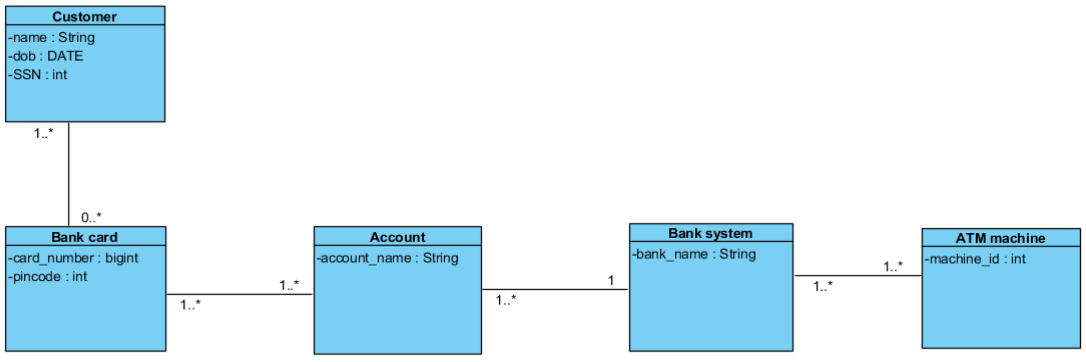

Figure 4. Domain model of automatic teller machine(ATM)

<public transport card machine> use case description

Description:	Traveler wants to get a new anonymous travel card with a certain amount of money
Pre-conditions:	A traveler has enough money for obtaining the travel card
Scenario:	1. Actor accesses public transport card machine. 2. System displays all the available options. 3. Actor chooses to get a new anonymous travel card. 4.System asks the actor to type in the amount of money that he/she wants to put in the travel card. 5.Actor enters the amount of money 6.System asks if the customer wants to pay by card or by cash 7. Actor chooses to pay by credit card 8. System asks the actor to insert the card 9. Actor inserts the bank card 10. System checks if the card inserted can be used for the transaction 11. System reads bank card and connects it to the bank system 12. System asks actor to enter pin code 13. Actor enters pin code 14. System sends card ID, pin, and the amount to be charged to the bank system. The bank system replies that the transaction is accepted. 15. System informs that the transaction is completed 16. System returns bank card to the actor 17. System informs that it is dispensing the card 18. Actor gets the bank card and a new anonymous travel card 19. System asks actor if he/she wants a receipt 20.Actor indicates that he/she wants no receipt
Results:	Traveler can get new anonymous card successfully
Exceptions:	10.1 System announces that the system cannot accept the customer's type card. System returns the bank card back to the actor. Return to step 2 14.1 System informs that the transaction is cancelled because the pin code is not correct. System returns the bank card back to the actor. Use case ends here 14.2 System informs that the transaction is cancelled because there is not enough money in the card. System returns the card back to customer. Use case end here.
Extensions:	7a. Actor chooses to pay by cash 1. System asks the actor to put the money in 2. Actor inserts money 3. System collects actor's money 4. System gives actor changes.

	21a. Actor indicates that he/she wants a receipt 1. Systems prints out the receipt for the actor

Name:	(Re)charge an existing anonymous travel card
Actor:	Traveler
Description:	Traveler (re)charges an existing anonymous travel card that the traveler inserted
Pre-conditions:	Traveler has an anonymous travel card and money
Scenario:	1. System displays all available options 2. Actor chooses to (re)charge 3.System asks the actor to type in the amount of money that he/she wants to put in the travel card. 4.Actor enters the amount of money 5.System asks if the customer wants to pay by card or by cash 6. Actor chooses to pay by credit card 7. System asks the actor to insert the card 8. Actor inserts the bank card 9. System checks if the card inserted can be used for the transaction 10. System reads bank card and connects it to the bank system 11. System asks actor to enter pin code 12. Actor enters pin code 13. System sends card ID, pin, and the amount to be charged to the bank system. The bank system replies that the transaction is accepted. 14. System informs that the transaction is completed 15. System returns bank card to the actor 16. System informs that it is dispensing the card 17. Actor gets the bank card and a new anonymous travel card 18. System asks actor if he/she wants a receipt 19.Actor indicates that he/she wants no receipt
Results:	Traveler (re)charges an existing anonymous travel card that the traveler inserted
Exceptions:	9.1 System announces that the system cannot accept the customer's type card. System returns the bank card back to the actor. Return to step 2 13.1 System informs that the transaction is cancelled because the pin code is not correct. System returns the bank card back to the actor. Use case ends here 13.2 System informs that the transaction is cancelled because there is not enough money in the card. System returns the card back to customer. Use case end here.
Extensions:	7a. Actor chooses to pay by cash 1. System asks the actor to put the money in 2. Actor inserts money 3. System collects actor's money 4. System gives actor changes. 21a. Actor indicates that he/she wants a receipt 1. Systems prints out the receipt for the actor

Name:	(Re)charge personalized travel card that the traveler inserted
Actor:	Traveler
Description:	Traveler (re)charge personalized travel card that was inserted at the transport card machine
Pre-conditions:	Traveler (re)charges an existing personalized travel card that the traveler inserted
Scenario:	1. System displays all available options 2. Actor chooses to (re)charge 3.System asks the actor to type in the amount of money that he/she wants to put in the travel card. 4.Actor enters the amount of money 5.System asks if the customer wants to pay by card or by cash 6. Actor chooses to pay by credit card 7. System asks the actor to insert the card 8. Actor inserts the bank card 9. System checks if the card inserted can be used for the transaction 10. System reads bank card and connects it to the bank system 11. System asks actor to enter pin code 12. Actor enters pin code 13. System sends card ID, pin, and the amount to be charged to the bank system. The bank system replies that the transaction is accepted. 14. System informs that the transaction is completed 15. System returns bank card to the actor 16. System informs that it is dispensing the card 17. Actor gets the bank card and a new anonymous travel card 18. System asks actor if he/she wants a receipt 19.Actor indicates that he/she wants no receipt
Results:	Traveler (re)charges a personalized card that the traveler inserted
Exceptions:	9.1 System announces that the system cannot accept the customer's type card. System returns the bank card back to the actor. Return to step 2 13.1 System informs that the transaction is cancelled because the pin code is not correct. System returns the bank card back to the actor. Use case ends here 13.2 System informs that the transaction is cancelled because there is not enough money in the card. System returns the card back to customer. Use case end here.

Name:	Activate a so called "choice day"
Actor:	Traveler
Description:	Traveler activates a so called "choice day"
Pre-conditions:	Traveler has an anonymous travel card and the customer must be older than 60 years old. Traveler only can activate choice days 7 times per year.
Scenario:	1. Actor accesses to the public transport card machine

	2.System shows actor all the available options 3. Actor choose to activate a choice day 4. System asks actor to insert his/her personalized travel card 5. Actor insert his/her personalized travel card 6. System checks if the actor is older than 60 years old 7. System asks the actor to confirm activating the choice day 8. Actor chooses to confirm activating the choice day. 9. System activates choice day for the actor 10.System confirms that the traveler has activated choice day successfully 11. System asks if the actor wants to continue doing anything else 12. Actor indicates that he/she does not want to do anything else 13. System logs out 14. System returns the card back to the customer
Results:	Traveler activates a so called “choice day” successfully
Exceptions:	6.1 Actor is younger than 60 years old. Use case ends here. 9.1 Actor has activated choice day for 7 times this year. Use case ends here.
Extensions:	12a. Actor indicates that he/she wants to continue doing anything else. Return step 2

Use case diagram

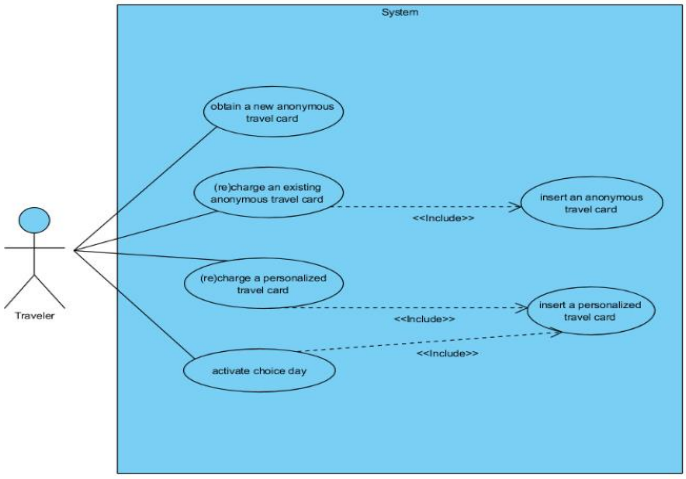

Figure 5. use case diagram of a public transport card machine

Domain model

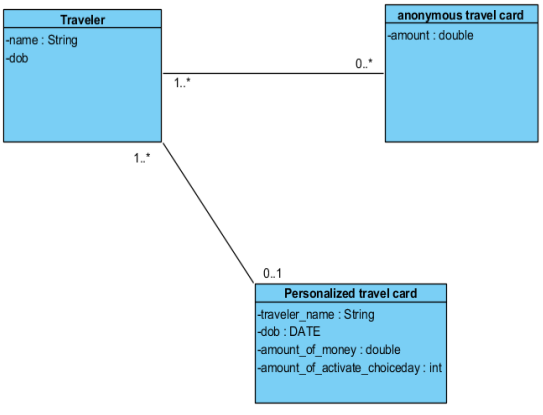

Figure 6. Domain model of public transport card machine