PROG 1350 – Software Engineering Fundamentals Assignment #2 – UC Analysis Report

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### **Use Case 1: Withdraw Cash**

#### Introduction

Scenarios depicted by the following use case are:

- A customer successfully withdraws cash from his bank account.
- A customer inserts his credit card, but it is not an XYZ Bank credit card withdrawal failed
- A customer inserts his credit card, but can't enter a PIN code withdrawal failed.
- A customer enters an amount of money that is not multiple of \$20 and refuses to reenter withdrawal failed.
- A customer enters an amount of money that is more that is currently present on his account and refuses to reenter withdrawal failed.

## **Description**

Goal	Withdraw cash from an XYZ Bank ATM
Actor(s)	Customer
Trigger	Customer inserts a credit card into an ATM
Main success	<ol> <li>Customer inserts a credit card into an ATM.</li> <li>System prompts for a PIN code.</li> <li>Customer enters his PIN code.</li> <li>System verifies the PIN code (see "Verify PIN" UC).</li> <li>System prompts for the amount of money to withdraw.</li> <li>Customer enters the amount of money.</li> <li>System gives out the money.</li> </ol>

### Exceptions

- 1.1. If the credit card is not from the XYZ Bank, system informs customer that he cannot use this ATM and releases the credit card; end of use.
- 6.1. If the entered amount of money is not multiple of \$20, system informs customer and prompts to reenter or cancel.
- 6.1.1. If customer cancels, system releases the credit card; end of use.
  - 6.1.2. Otherwise proceed to step 6.
- 6.2. If the amount of money entered is more than there is in customer's account, system informs customer and prompts to reenter or cancel.
- 6.2.1. If customer cancels, system releases the credit card; end of use.
  - 6.2.2. Otherwise proceed to step 6.

### **Use Case 2: Set an Alarm**

#### Introduction

Scenarios depicted by the following use case are:

- User wants to create a new alarm, enters date and time from the past and refuses to reenter setting failed.
- User sets date and time for new alarm, and chooses a radio station to wake up to from presets.
- User sets date and time for new alarm, and sets a new radio station to wake up to.
- User sets date and time for new alarm, and sets a existing tone to wake up to.
- User sets date and time for new alarm, and uploads a new tone to wake up to.
- User sets date, time, tone/radio station, repeat settings but does not confirm setting failed.
- · User sets a new alarm successfully.

## **Description**

Goal	Set a new alarm on the Bedrock Alarm Clock Radio
Actor(s)	User
Trigger	User chooses "Create Alarm" option from Administration menu
Main success	<ol> <li>User chooses "Create Alarm" option from Administration menu.</li> <li>System prompts for date and time.</li> <li>User enters date and time.</li> <li>System prompts for a tone or a radio station to wake up to.</li> <li>User chooses an option and enters it.</li> <li>System prompts for alarm frequency (daily, weekly, monthly, etc.).</li> <li>User enters alarm frequency.</li> <li>System asks to confirm or cancel the settings.</li> <li>User confirms.</li> </ol>

#### Exceptions

- 3.1. If the entered date and time are not in the future, system informs user and prompts to reenter or cancel.
  - 3.1.1. If user cancels, end of use.
  - 3.1.2. Otherwise proceed to step 3.
- 5.1. If user chose a radio station, system prompts for a preset or a new radio station.
- 5.1.1. If user wants to choose from presets, he does so; proceed to step 6.
- 5.1.2. If user wants to set a new radio station, he does so (see "Set Radio Station" UC); proceed to step 6.
- 5.2. If user chose a tone, system prompts for an existing tone or a new tone.
- 5.2.1. If user wants to choose from existing tones, he does so; proceed to step 6.
- 5.2.2. If user wants to upload a new tone, he does so (see "Upload Tone" UC); proceed to step 6.
- 8.1. If user cancels, return to stand-by mode; end of use.

## **References**

Williams, T. (2019). SEF Assignment-02: Use Case Analysis. Retrieved February 27, 2019 from eConestoga.

Cockburn, A. (2001). *Writing Effective Use Cases*. Retrieved February 27, 2019 from eConestoga.