Business Startup Manage Business Scenario 2
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The Business Startup Game's goal has been to teach its users about real world business strategies. Our first scenario allowed us to help the user set up the gameplay environment for the user. In this second scenario, our user will be able to manage each of their businesses and deal with money in the gameplay.

For this scenario, we will focus on the gaming logic. The user will be able to make key business decisions about their owned businesses. These decisions will determine whether their business is able to expand or go bankrupt. The game will provide the user with various commands that will let them control different aspects of their individual businesses.

In this scenario, we are also changing how the maps are chosen. Our new implementation will consist of some specified locations that the user can choose to set their business on. Additionally, our new implementation will only consist of one business which will be the Food Business. We want to introduce as much information about the Food Business to the user so they can take that knowledge and use it in the real world.

Scenario "Manage Owned Businesses"

At the beginning of the game the user will be provided with an initial budget of $100,000. In addition, the user will own one business by default at the beginning of the game with two employees. The user will also have access to a dropdown list of owned businesses which they can buy. The bought business will be displayed on the game map as a marker, and any subsequent businesses bought will also be represented as a marker. When the user owns a business, the command "Manage Business" will be made available to them where four different commands will be provided. These commands will deal with different aspects of the individual buisness selected.
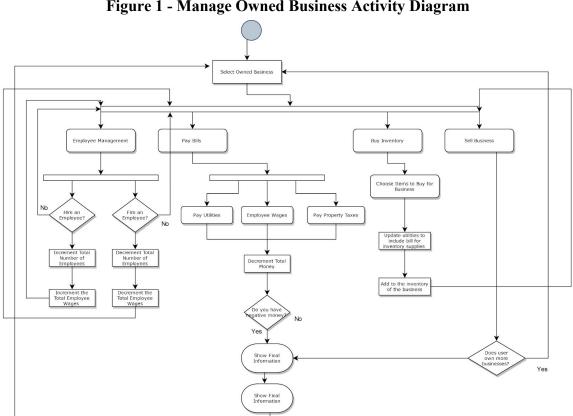
 The "Employee Management" command will contain different commands for the user to manage their employees. The "Fire" and "Hire" commands will let the user hire and fire a specific amount of employees for that business. The user will be able to see the cost of hiring each employee and it will be up to them to determine when it is beneficial to hire when revenue is high or when to fire due to losses. The fire and hire commands affect the "Pay Employee Wages" in the "Pay Bills" command.

The "Pay Bills" command will give the user options to pay different bills such as employee wages, utilities costs, and property taxes. After the user selects the "Pay Bills" command, they will see three options to "Pay Employee Wages", "Pay Utilities", and "Pay Property Taxes." If

the user chooses to "Pay Employee Wages" then they will pay $600 per employee. If the user chooses to "Pay Utilities" they will pay a specified fixed amount based on the location. Similarly, if they choose the "Pay Taxes" command, they will pay the taxes based on their location. The default business that the user owns at the beginning has $500 to pay in taxes and $50 to pay for utilities. The utilities get updated based on the inventory you buy. So, if the user buys inventory, they will pay for it when they press pay utilities.

The "Inventory" command will allow the user to buy inventory for their food business and they will decide which individual items to restock. Each item will have an individual price and when the user chooses an item to restock their price will be added to an aggregate cost. The user will pay this cost when they decide to "Pay Utilities." The inventory of the business will be updated when you buy different items from the inventory, which increases the value of your business. The items you can buy and their prices are stored in a database for the game.

The "Sell" command allows the user to sell their business for a price based on its value. The value of an individual business is based on the price the user bought it for and the amount of employees it currently holds, the amount of utilities and taxes the user pays for it, and the amount of inventory the business holds. When the user has no more businesses to sell then the game is over. After the user sells a business, the game map will remove the marker from the game.

Figure 1 - Manage Owned Business Activity Diagram