

# **Tamagotchi Style Game for Asthma Management**

BTech Mid-year report

Sun Chao

Academic Supervisor: S. Manoharan

Industrial Supervisor: Garth Sutherland

## Abstract

*This paper introduces a tamagotchi style game developing for asthma management. Asthma is respiratory disease which often in response to one or more triggers. Public attention has recently focused on asthma because of its rapidly increasing prevalence, affecting up to one in four urban children.*

*For this project, we will develop a tamagotchi style game for asthma management. The game will help kids about 8 – 10 years old get to know more about asthma, what they should do and shouldn't do to stay healthy. This project is pioneer work in the area of developing games for asthma management.*

# 1. Introduction

This project is sponsored by Nexus6 to develop a tamagotchi game for asthma management.

## 1.1. The Company

Nexus6 Ltd is founded in 2000. The company develops solutions for people who have respiratory conditions such as asthma, bronchiectasis, chronic obstructive pulmonary disease and cystic fibrosis. The company team includes people with asthma and bronchiectasis. They understand life with lung conditions well and they aim to help people with same conditions to achieve maximum personal wellness with minimum medication.

Nexus6 also provides solutions for international respiratory research. My industrial project supervisor Garth Sutherland as a lifelong asthmatic, he was inspired to doing research and develop products to help people.

## 1.2. The Project

The project is to develop a tamagotchi game for asthma management mainly for kids between 8 – 10 years old.

### 1.2.1. Motivation

Recently asthma has pulled the world's attention because of its rapidly increasing prevalence, affecting up to one in four urban children.

Asthma can be triggered in many ways. The symptoms of it can range from mild to life threatening. Most kids will like outdoor sports and running around with friends. But it is proved that activities in which a patient breathes large amounts of cold air, such as skiing and running, tend to be worse for asthmatics, whereas swimming in an indoor, heated pool, with warm, humid air, is less likely to trigger it. So it is important to let kids with asthma know that which sports are good for them. And be extra careful when they going to do sport that might trigger asthma.

The most effective treatment for asthma is identifying triggers and avoiding them. But if trigger avoidance is insufficient, or for some children who suffer daily attacks. It is important to let them know they should take medical treatments every day. Even it is parents' job to keep eye on their own children but it is still good to let children know how to take care of themselves.

### 1.2.2. Project plan

The project will be developed under RAD. The program will be implemented in C# under VS.NET 2008 and using MS Access database.

## 2. Current Work

I have developed three simple forms for my application now. First page is the tile page. It allows user to start new game or load game or quit the application.



This is a screen shot of the title page. There are three buttons; "New game" will lead users to the next page. For now the application only allows one record at a time. That means if user start a new record of game. The previous record will be deleted. I have made this decision because I think this would be easier for kids to manage their records.



This message will show up if there is previous record in the database and user pressed "New game" button.

“Load game” button will let user continue with their previous record.



This message will show up if there is no previous record found in database and user pressed “Load game” button.

The second page is a really simple page consists with two buttons and a textbox.

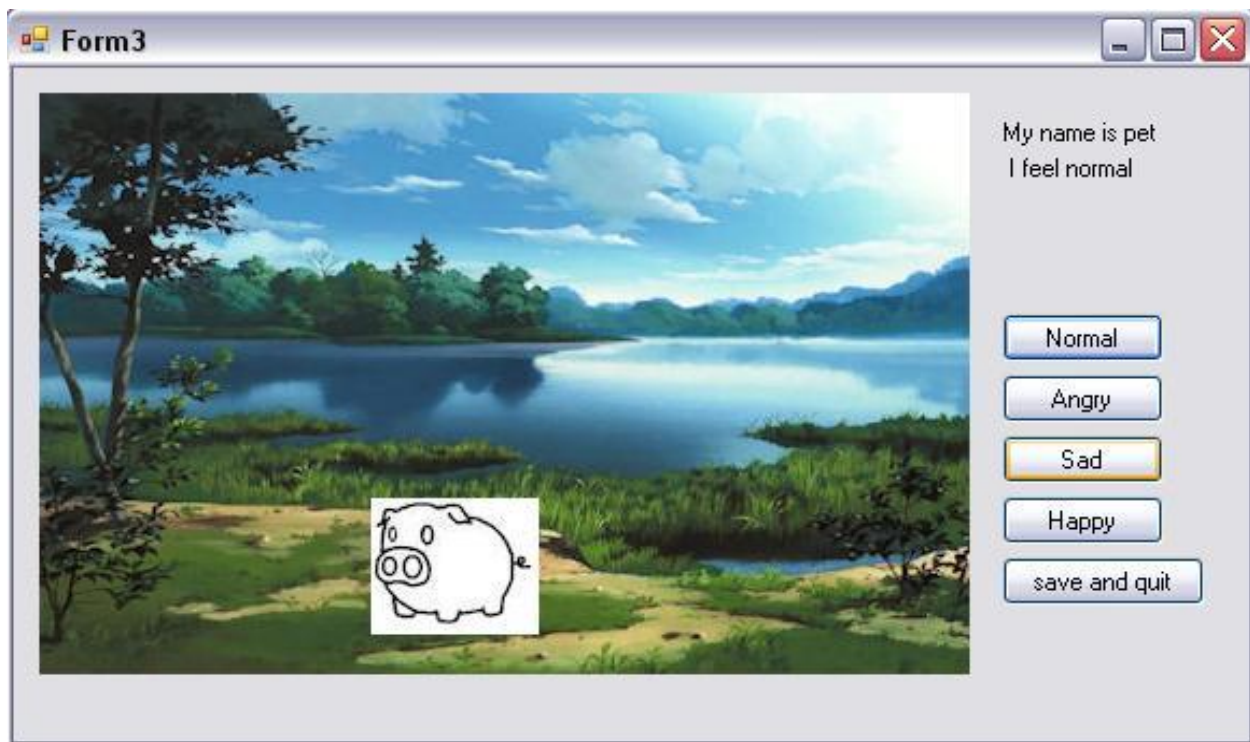


This is a screen shot of the second page. The textbox is for user to input the pet’s name and “Start game” button will lead the user to the game page. “Back to Title” will bring user back to the title page.

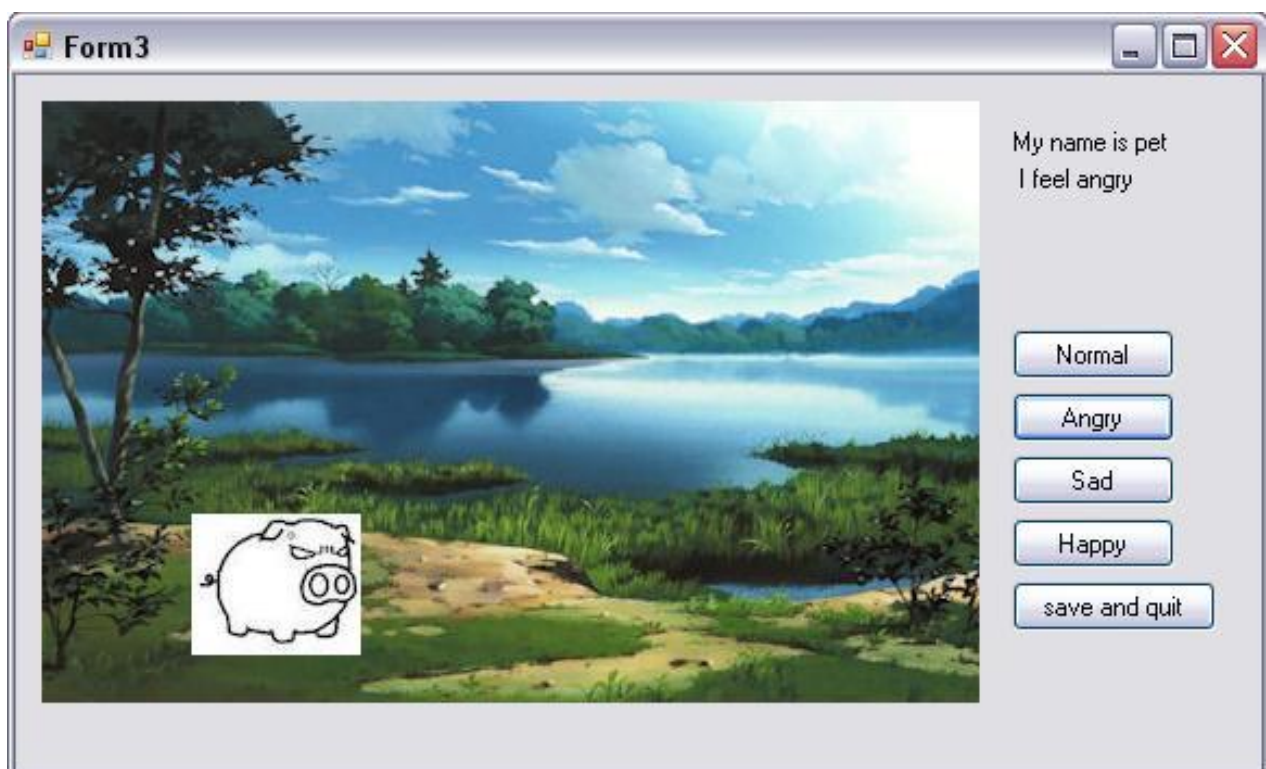


This message will show up if the textbox is empty and user pressed “Start game” button.

Third page is the actual game page.

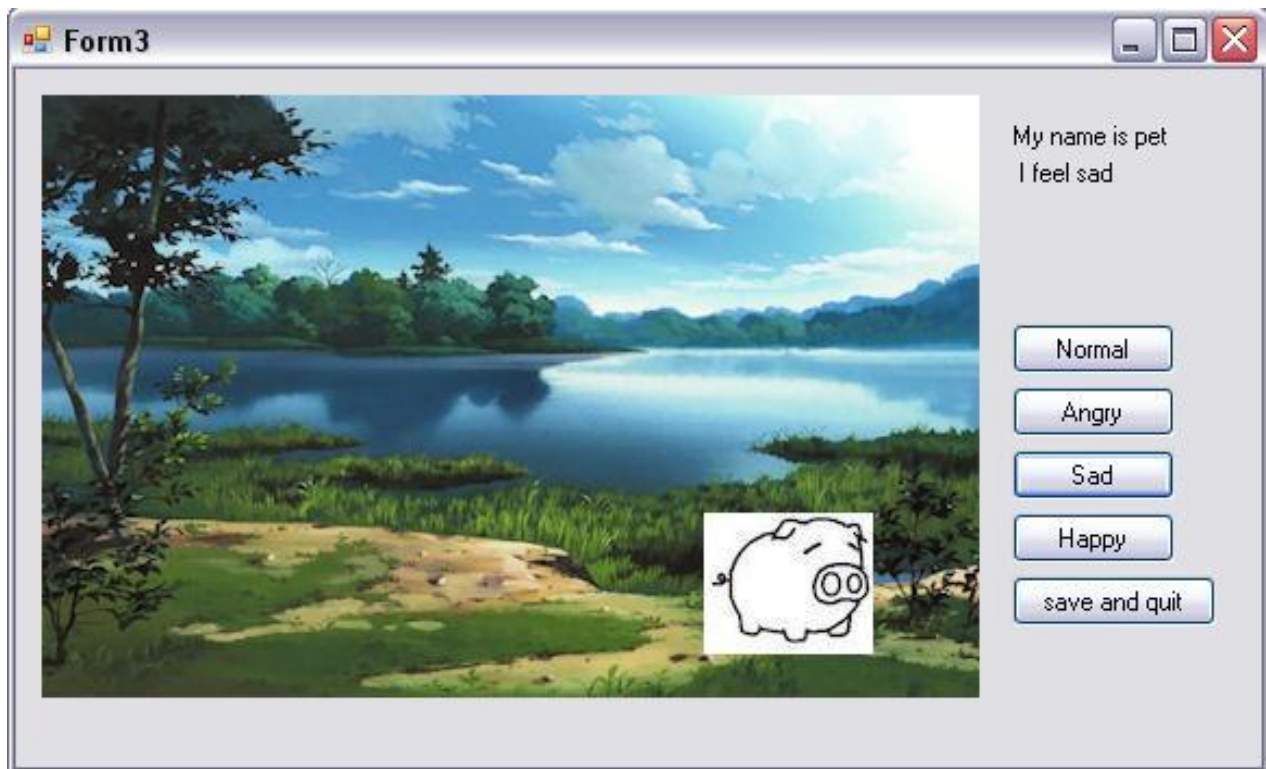


Here is a screen shot of the game page. Two labels at top right corner tell user the name of the pet and the current status of the pet. Five buttons. "Normal" will set the pet's status to normal. "Angry" will set the pet's status to angry and so on.



Another screen shot of the game after “Angry” button is pressed.

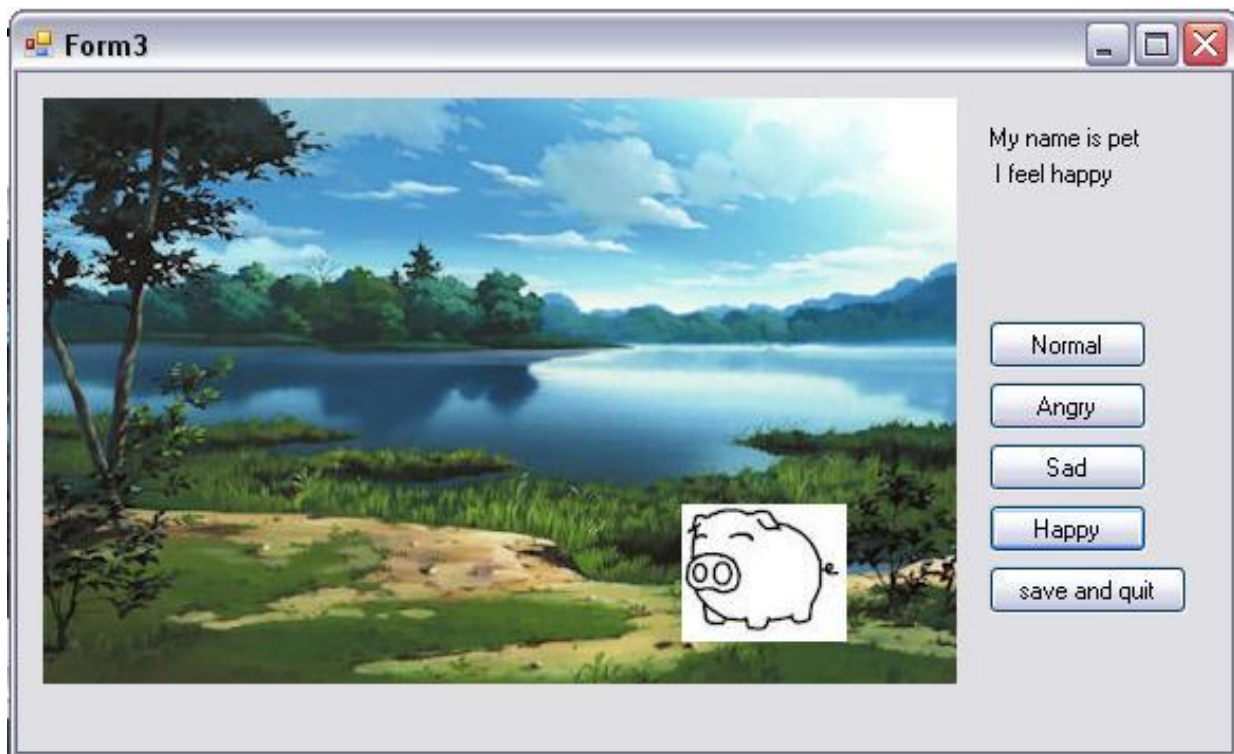
We can see the status label changed. We can’t see in screen shot but the pet will move more rapidly when in angry status.



Another screen shot of the game after “Sad” button is pressed.

Again we can see the status label changed. And pet will not move when in sad status.





Another screen shot of the game after “Happy” button is pressed

“save and quit” button will save the current status of the pet to database and get user back to the title page. The reason why I make save and quit in one button is because prevent users quit game and forget to save.

### 3. Future work

After basic decisions and some basic interface design work has been made. It is time to move to detail works for graphics, user actions, sounds, animations, and more.

Provide a default set of names for kids to choose so they don’t need to type anything.

Remove buttons to change status. Replace with other user actions such as taking medicine and exercising.

Status should be driven by the medication and other user behavior.



To make the application attractive for kids it may be a good idea to use animations rather than still pictures. And maybe allow users to use their preferred pictures as the pet display.

Add in sound effect respective to different status.

#### 4. Conclusion

As a game player, I really enjoy playing games. But it is totally different when it comes to developing a game. I have to plan things and making decisions as need to consider the targeted audience is kids at 8 – 10 years old. What is easier and what is more attractive for them.

This project has taught me the importance of always taking how would user interact with the application into consideration when you doing the designing. Especially when users are belongs to a very different population group. I am sure that I will learn a lot from doing this project.