

### **Executive Summary:**

We all know that jobs can be boring. When a job is boring, our motivation and attention to detail tend to start lacking. Additionally, the job doesn't fulfill out emotional needs and we look for other more fulfilling endeavors. For many, the environment of a call center is that epitome of a 'boring' job.

Because of the repetitive and laborious nature in call centers, more center managers face a significant business problem. The attrition of the call center workers is extremely high, even 100% in some centers. If people felt more 'engaged' or excited about the results of their work, then this high attrition would decrease and quality would improve greatly. The WorkJoy Experiment is an application to test a "Gamification Theory". If I can give workers more to think about than the repetitive tasks they perform, then they will care more.

WorkJoy is a "game". The key to this game however, is that players earn points and skills by performing real world tasks. For the sake of this class, I have tied to functions that give real world feedback into the MBA Lounge Forums. Each time people participate in the forums, their status in the game increases. In theory, the result of people playing the game should drive higher activity in the MBA Lounge Website.

### **The Game**

In the beginning we all worked for minimum wage. Through hard work and diligence, we grow our money reserves, skills, and abilities to accomplish more. If we reach for the stars, someday we might even own an amusement park.

To start the game click on the Load WorkJoy App button

	A	B	C
1	Profile:	NewPlayer	
15			
16	Load WorkJoy App		
17			
18			
19			
20			
21			

The game starts your character out on the bottom rung. You need to work weekly jobs to develop your character and get more money. Below is a breakdown of all the important information regarding your character.

**Work Joy Main** X

Character | Business

Character Name Change Name

**NewPlayer** (level up)

**Level** 1 **Work**

**Skills** 5 1. Fun Building Work the Week

**Social Network** 5 2. Exciting Punishment Look for New Jobs (-3 Energy)

**Money** \$100.00 3. Fun Labor

**Work Energy** 10/10 4. Cool Building

**DailyGrind** 5. Boring Labor

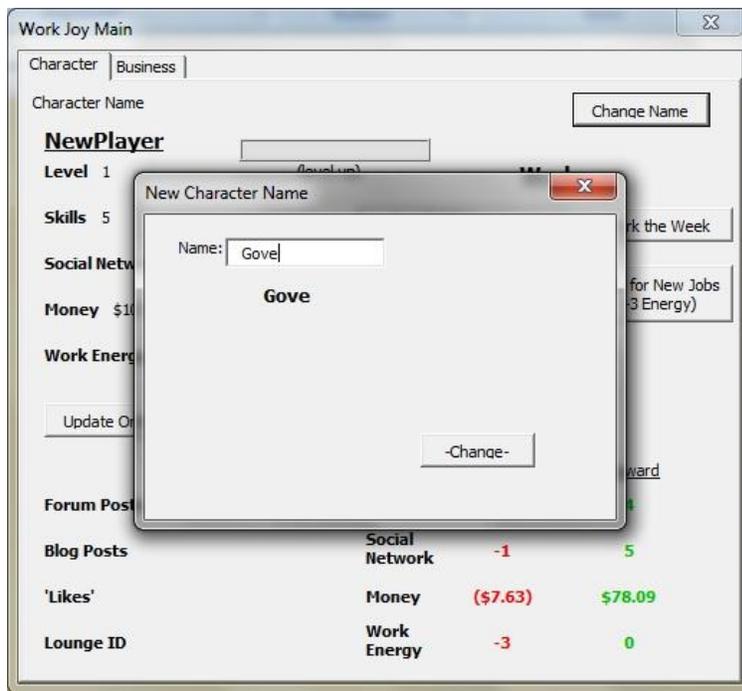
Update Online Activity Level Required: 1

	Cost	Reward
<b>Forum Posts</b>	-	-
<b>Blog Posts</b>	-	-
<b>'Likes'</b>	-	-
<b>Lounge ID</b>	-	-

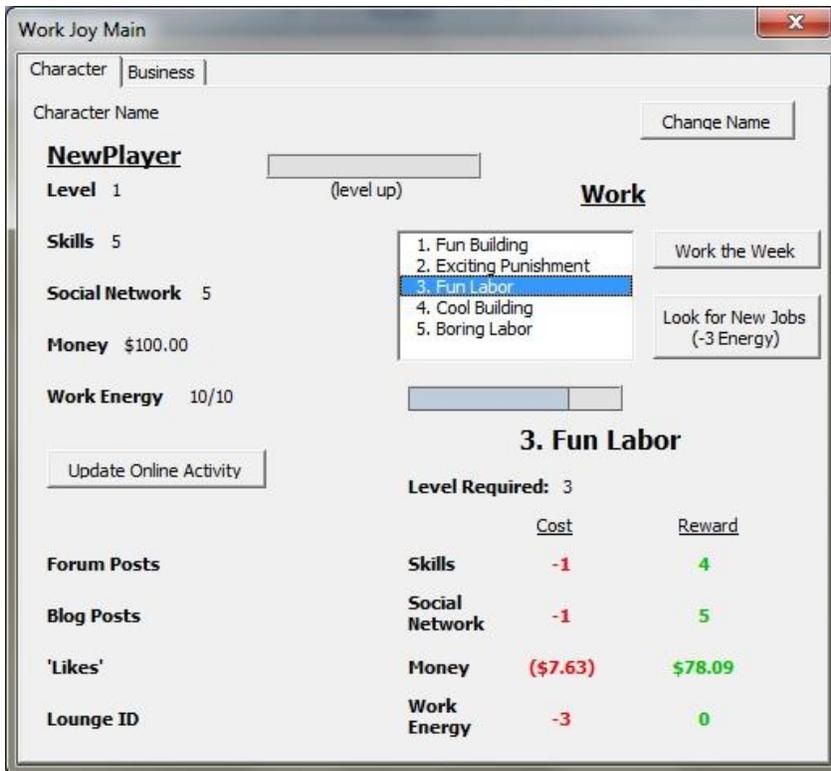
Everything under “NewPlayer” details your character’s status. These are defined as follows:

- **Level:** The current level of experience your character has. A level is roughly 6 month of work.
- **Skills:** This is the skills and abilities your character develops. Like typing, reading, or public speaking. The higher the skills, the better businesses you can own.
- **Money:** Everything takes money, particularly buying new businesses.
- **Work Energy:** When you work, you get tired. Your work energy represents how much work you can do. Every 5 minutes you regain more energy, so come back often to accomplish more tasks.

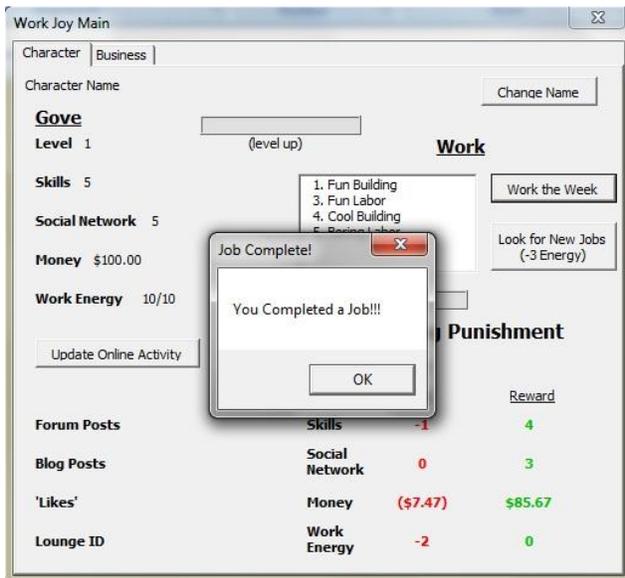
Now first things first. Click on the “Change Name” button to change your character’s name.



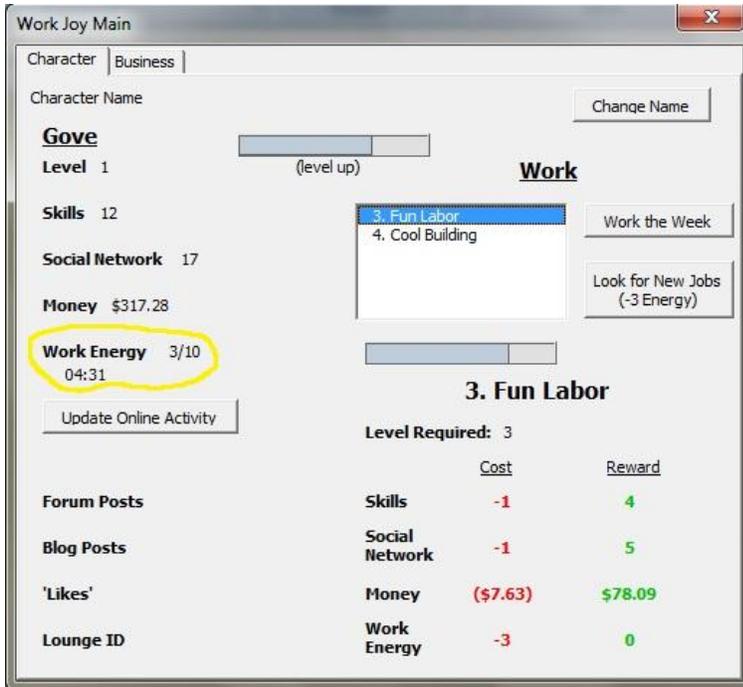
Once you have named your character, click on a job inside the Work listbox.



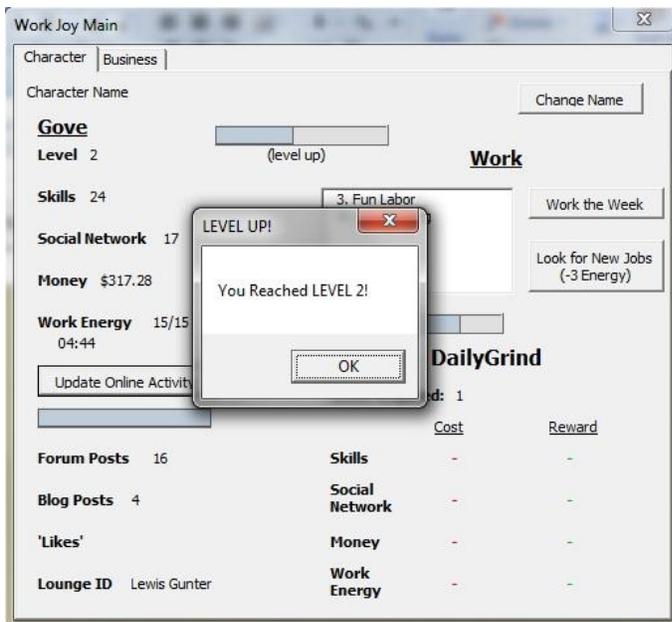
You will notice details fill in below the job. Each job has costs as well as rewards. If you have enough of each of those areas, you can perform the task. If you like the job, go ahead and click the “Work the Week” button on the right.



Great job, you finished a job! Now notice your character’s attributes have increased.

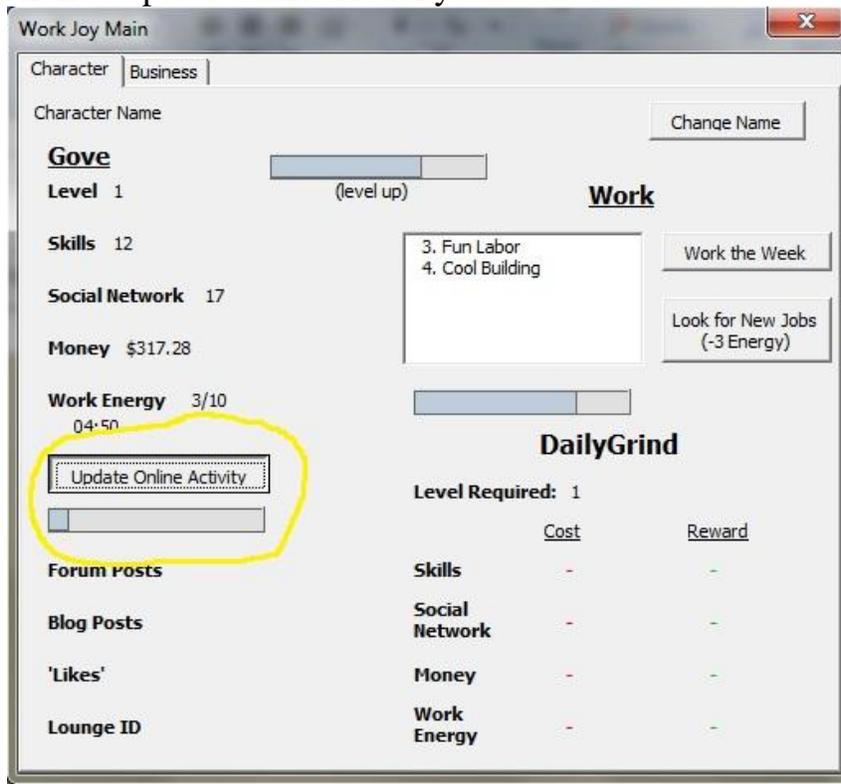


Look at your Work Energy now. If it is below the max for your level, a countdown timer begins. Like mentioned before, every 5 minutes you regain 1 energy.



Now work on another job. Oh look! You have reached a new level. Each level you gain unlocks more rewarding work for you to perform.

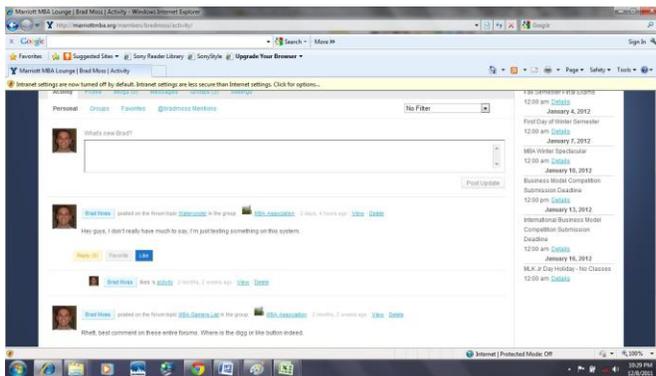
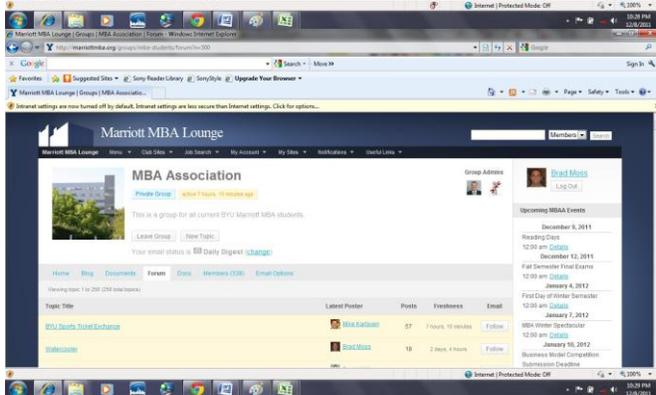
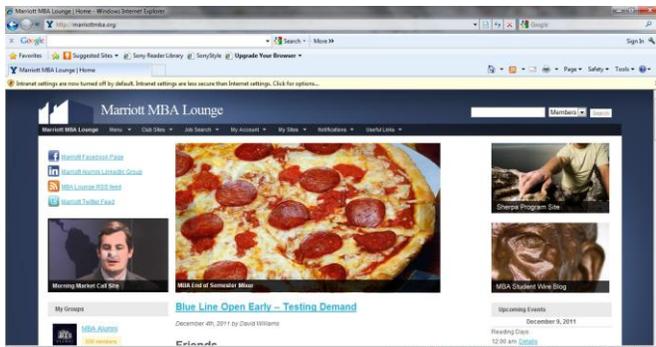
Now it is time to get credit for all of your activity on the MBA Lounge Forums. Click on the “Update Online Activity” button.



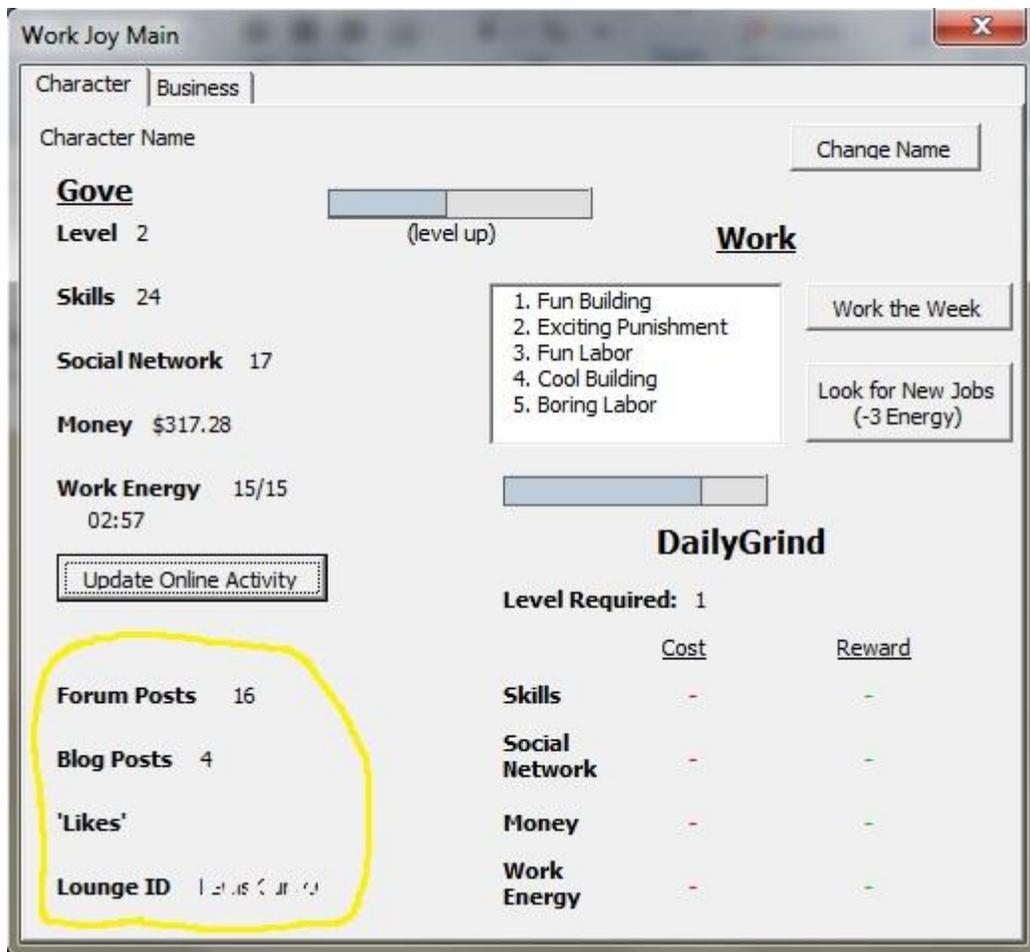
If you aren't logged into the MBA Lounge Website, you will need to log in.



Now the progress bar below will update as the WorkJoy Experiment goes and fetches the data from the forums. This isn't displayed, but here are some of the websites the program navigates through.



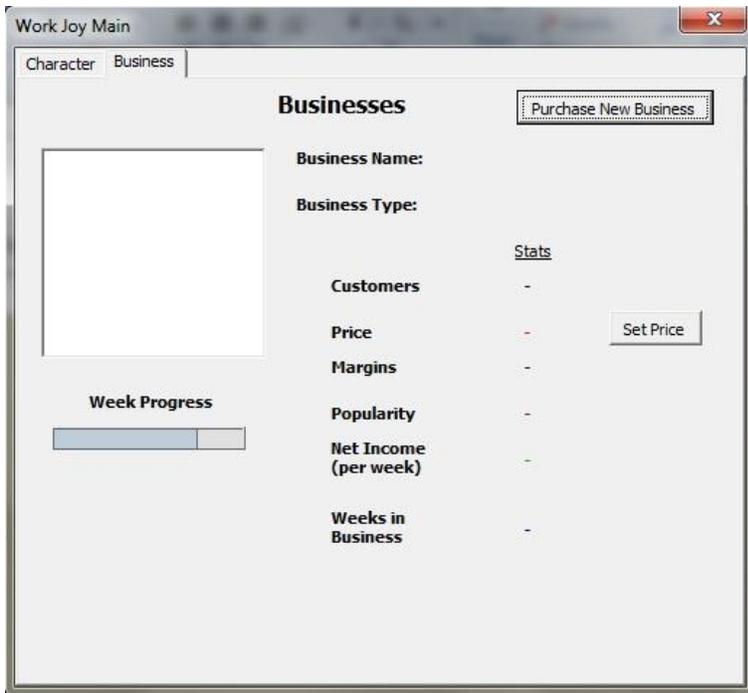
When it is done you'll notice something fantastic!



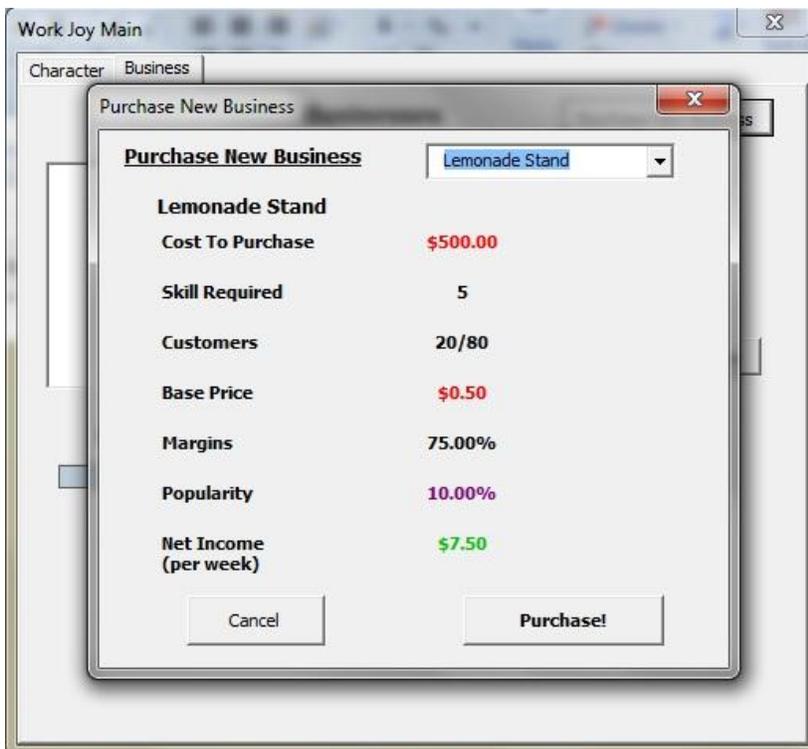
If you have Forum Posts, Blog Posts, or “Likes” on observing others’ activity your data will be pulled in here. Also notice your character’s abilities. You gain 3 work energy for every forum post, 3 skills for every blog post, and 1 Social Network for every ‘like’ you post. This way, you’ll be able to keep progressing in the game without waiting the 5 minutes to each work energy.

Well done, you are on your way to building an empire. But how will you build your own empire without some residual income? Let’s go create some.

On the top there are two tabs. We’ve been working on the “Character” tab. Click on the “Business” tab.



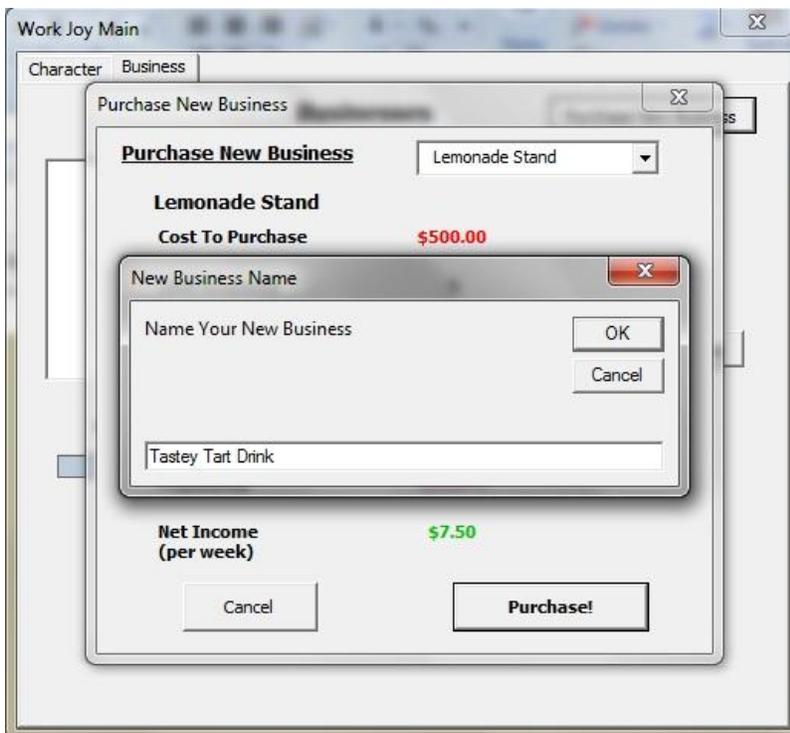
This tab shows all of your businesses. But by the looks of it you do not have any at the moment. Work up \$500 in cash by doing the weekly jobs, and then click on the “Purchase New Business” button.



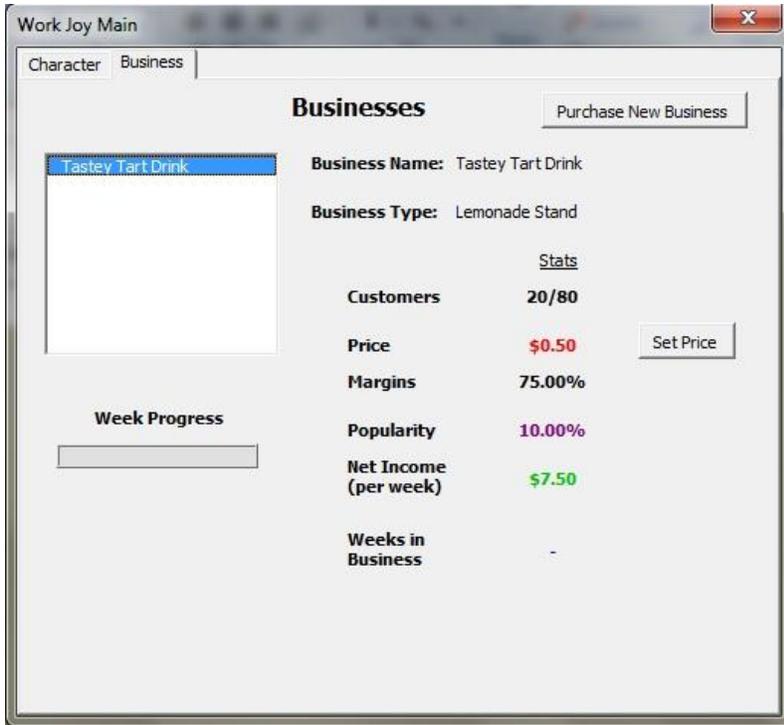
Use the dropdown list to look at the different types of businesses. We'll need to start with the most basic, a "Lemonade Stand". After selecting the "Lemonade Stand" look at the values below:

- **Cost to Purchase:** How much money you'll need to buy this Business.
- **Skill Required:** The skills you need to be able to manage this business.
- **Customers:** This is how many customers you get a week. Each business also has a maximum.
- **Base Price:** This is what each customer is charged for the service or good.
- **Margins:** This is the margin you get from each sale to a customer.
- **Popularity:** This is the rate by which you gain new customers.
- **Net Income:** This is the total amount you get per week from this business. This amount is added straight into your "money" account.

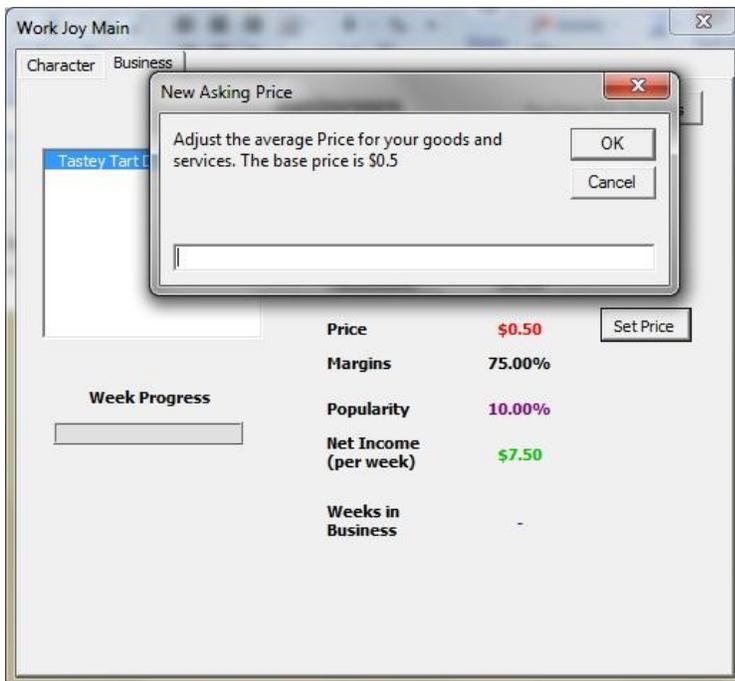
Now, click on "Purchase". A Name Box appears and you should name your new business.



Now we go back to the Business Tab of the main form.



There are two things you should learn about this page. First, click on the “Set Price” button.



You have the ability to set the prices for your goods and services. In the text box shows the “base” price of your good. If you set your prices above the base price, your

popularity will decrease, and vice versa. You can manage the prices on your goods to strategically gain customers and get the right amount of return from your business.

The second thing you should look at is the progress bar. This shows how close the business is to finishing up the week. Typically it takes 6 hours to complete 1 week. If you are ever curious about how many weeks your business has been in business you can look at the “Weeks In Business” value on this page.

Well that is about it! Grab a friend or two and start your own games. See who can become a millionaire the fastest! Good Luck.

## **Particularly Difficult and hard tasks accomplished**

### **Count Down Timer**

The first most difficult thing that I had to accomplish was figuring out how to do the timer. I scoured the net and found a very interesting function called, `Application.OnTime`. What this does is call a sub routine or function at a specific time interval based on the system’s clock. I essentially just called the “timer” function every second. This resulted in a clock that counted down.

### **Converting dates to usable numbers**

Something that I found fairly difficult was figuring out how to work with dates and time. I used a few clever methods to convert dates to an Integer, to my adding and subtracting there, and then converting them back to a Date.

### **Get HTML**

Even though this sounds easy, I had a difficult time trying to find the actual HTML from the webpage I was browsing. In the end I went into the “agent” and created my own function that returned the HTML address of the webpage I was on. I needed this functionality to check whether people were logged into the MBA Lounge Forums when they ran the program. If they were, the code just goes straight where it needs to. If they weren’t, the code prompts a login input from the user.

### **Procedural Job Generator**

In an attempt to make the game “infinite” I got clever when giving the list of available jobs. I created a “Procedural Job Generator”. What this does is create 5 new jobs,

based on the level of the player's character. It even has a random Adjective and Noun job title builder. 😊

## **Progress bar**

I knew that I wanted a progress bar, but I wasn't sure how to do it. I worked on a number of solutions, but ended up just having two images over each other, one being the "filler" and the other being the background.

## **Design Challenges**

Some of the most difficult challenges that I had in my project were to create the actual design of the game. I knew that I wanted a "text" game, but as to the subject I wasn't sure. I redesigned the "Character" page multiple times until I was comfortable with what I ended up with.

I also knew that I wanted the player to make "Businesses", but I wasn't sure how they would fit in with the normal character's attributes. I worked through several iterations and once I started building the businesses the game design started to link and come