**CS 242 Final Project Proposal Template**

**Contra Clone**
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# 1.    Abstract

## 1.1.        Project Purpose
Develop a platform game similar to Contra from nes.

## 1.2.        Background/Motivation
Currently I possess no knowledge of non-static graphics rendering or the C# language. I want to try to recreate one of my favorite childhood games Contra. Due to my lack of knowledge I do not expect this to be a convincing clone, but wish to re-create the general game play environment. To expand my programming tool belt to include said elements.

# 2.    Technical Specifications

### 2.1.    Platform: XNA Game Studio

### 2.2.    Programming Languages: C#

### 2.3.    Stylistic Conventions:

**https://msdn.microsoft.com/en-us/library/ff926074.aspx**

### 2.4.    SDK: Splunk

### 2.5.    IDE: Visual C#

### 2.6.    Tools/Interfaces: Just a standard computer

### 2.7.    Target Audience: Game enthusiasts

# 3.    Functional Specifications

### 3.1.    Features

- Select one or two players

- Move through the 2-D environment

- Jump

- Shoot/kill enemies

- obtain power ups

### 3.2.    Scope of project
Limitations of the original game is that it only can be run in a linear order. Game play has a single start point and only one way to win.

**4. Timeline:**

    **4.1. Week 1**

        4.1.1. Set up the development environment

        4.1.2. Create necessary objects that define generic versions of:

            4.1.2.1. Hero/enemy

            4.1.2.2. Weapon

            4.1.2.3. Power-ups

            4.1.2.4. Environment

    **4.2. Week 2**

        4.2.1. Render static display of a generic level and character

        4.2.2. Expand objects to contain recognizable visual characteristics

            4.2.2.1. Human form

            4.2.2.2. Gun

            4.2.2.3. Ground

    **4.3. Week 3**

        4.3.1. Implement movement

            4.3.1.1. Side scroll with user input

            4.3.1.2. Jump

        4.3.2. Implement environment interaction

            4.3.2.1. Shoot gun

            4.3.2.2. Kill enemies

            4.3.2.3. Obtain power-ups

    **4.4. Week 4**

        4.4.1. Refine visual aspects

            4.4.1.1. Character appearance

        4.4.1.2.     Environment appearance

        4.4.1.3.     Add Environment obstacles

        4.4.1.4.     Movement realism

## 5.  Future Enhancements

5.1.  Cheat codes

5.2.  Easter eggs

5.3.  Variable Enemy behavior

5.4.  Level Select