**SOFTWARE PROJECT PROPOSAL**

**Program Name:**  Website Project for Datus International School

**Background:**

Datus

**Problem Definition (“Requirements”)**

A website is

**Problem Analysis (“Design”)**

* + Input and Output (list of all input/output from/to user, files, screen, etc.)
    - Layout of your main screen and at least two significant others
  + Java (and other object oriented languages):
    - Draw a hierarchy chart of the main program and its sub-programs (methods)  
      - Tasks should be broken down into different methods if possible
    - Show method headers (indicating parameters to be passed and return values)
  + Flash:
    - Describe the scenes (if used) and the purpose of the different frames in the main scene.
    - Hierarchy chart of your movieclips (and sub-movieclips if used)
    - Identify the event handlers required for each movieclip and describe what they will do.

*Please see the attached example.*

*This is the design phase, so you are not required to stick to the breakdown that you specify here. You should, however, show evidence of good planning.*

Example Project Proposal

**Program Name** SimplePONG

**Problem Definition (“Requirements”)**

SimplePONG is a game where a ball bounces inside a square arena. Players have rectangular paddles that they use to bounce the ball. If a player misses the ball and it goes off the edge off the screen, the other player gets a point. The player who scores the most points in 5 minutes is the winner.

The ball will:

* Bounce off the top and bottom of the screen
* Bounce off the two paddles
* Speed up slightly whenever it bounces
* If the ball goes off the end of the screen, it will:
  + Give the other player a point
  + Check to see if there is a winner
  + Restart from the opposite side of the screen
  + Reset its speed

The paddles will:

* Move up and down with the keyboard
  + Q/A for player 1; up/down arrows for player 2
* Not go off the screen

**Problem Analysis (“Design”)**

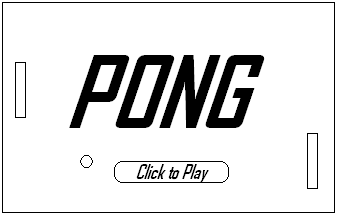
Inputs:

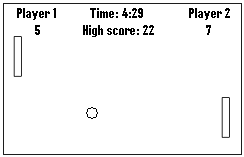
* Keyboard:
  + Q = player 1 up
  + A = player 1down
  + UP arrow = player 2 up
  + DOWN arrow = player 2 down

Outputs:

* Screen:
  + Ball
  + Paddles
  + Scores
  + Time
  + High score

Screen Layouts:

 Intro:

 Game:

 Game Over:

The game will have one scene, with the following frames:

Frame 1: Introduction and rules

Frame 2: The actual game

Frame 3: Game Over frame

Movie Clip hierarchy:

* Root
  + Paddle 1
    - * onClipEvent(enterFrame)  
        - check if key pressed, move  
        - check if off screen, if so set at edge
    - HitArea
  + Paddle 2
    - * Same as per paddle 1
    - HitArea
  + Ball
    - * onClipEvent(load) – sets initial values for the game
      * onClipEvent(enterFrame)  
        - move  
        - check if it is off the left or right of the screen & give score  
        - check if it hits the hit area of the paddles & bounce  
        - check if it is off the top or bottom of the screen & bounce
  + Score1
    - * onClipEvent(enterFrame)  
        - shows the current score for player 1
  + Score2
    - * Same as Score 1
  + Time
    - * onClipEvent(load)  
        - remember the start time
      * onClipEvent(enterFrame)  
        - display the time  
        - when it reaches 5 min, go to the Game Over frame

**Website Development Proposal**