# Melting Snowman:
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## Overview:

This document outlines the requirements for the software implementation of the classic game of Hangman with a winter twist. This software will provide the user with the opportunity to play Melting Snowman, and it will keep track of his score. The description of the game and the requirements of this implementation are presented below.

## The Game:

The user will be presented with an inviting game screen. On the top of the screen, there will be a toolbar with a start button, a message box, and a score box. On the middle, left of the screen, there will be 26 buttons, each displaying one letter of the ABC. These buttons are for the user to guess from. To the right of the buttons, there will be a snowman. The snowman is there to gradually melt with the user's incorrect guesses. On the bottom of the screen, there will be a blank white box. This box is to display the lines for the mystery word.

When the user presses start, the computer will select a mystery word. A select number of lines will appear on the bottom of the screen, representing the number of letters in the mystery word. The user will try to guess the mystery word by guessing its letters. The user will click on a letter to guess it. If the word contains the letter, it will turn green, and it will replace the line(s) representing it on the bottom of the screen. If the word does not contain the letter, it will turn red, and a part of the snowman will melt. There are 6 parts to the snowman which will disappear one at a time. The goal of the game is for the user to guess all the letters in the word, before the entire snowman melts.

## Software Implementation:

### UI Elements:

- Toolbar at the Top of the Screen:
  - Start Button
  - Message Box
  - Score Box
- Middle Left of the Screen:
  - 26 yellow buttons, each displaying one letter of the ABC
- Middle Right of the Screen:
  - A snowman with 6 parts that will disappear as the user guesses incorrect letters
- Bottom of the Screen:

- o   An empty white box
- o   Lines that will appear, representing the number of letters in the mystery word.

Game Processes and Rules:
- The game has a resting mode and a playing mode.
- The game begins in resting mode. Only the start button is enabled.
- Once the user clicks start, the game enters playing mode, and the game begins. The computer selects a word from a random word bank, and a select number of lines will appear on the bottom of the screen, representing the number of letters in the mystery word.
- The user can now begin to guess the word by guessing its letters.
- The user will click on a letter to guess it. If the word contains the letter, it will turn green, and it will replace line(s) representing it on the bottom of the screen. If the word does not contain the letter, it will turn red, and a part of the snowman will melt. There are 6 snowman parts that will disappear in a sequential order until the snowman is completely melted.
- If the user guesses all the letters in the word without guessing 6 incorrect letters, the user wins the game. The completed word will turn green, the message box will display a winning message, and 1 point will be added to his score. The game enters resting mode.
-  If the user guesses 6 incorrect letters, the user loses the game. The message box will display a losing message and 1 point is subtracted from his score.  The game enters resting mode.
- Once a letter is selected, that letter's button is disabled.
- The game begins again when the user presses start. The message box clears, all the ABC buttons are enabled and return to yellow, the snowman reappears, the computer selects a new word, and new lines appear on the bottom of the screen. The game is now in playing mode.
- If the user presses start in the middle of a game, the current game clears and a new game begins.