Problem Definition:

* spelling test every week
* Merit assembly
* Allow users to log in either as staff or pupil
* Allow staff to add words and definitions to the system
* Display a ten question spelling test
* Automatically mark
* Calculate and display a pupil’s score at the end of the test
* Store pupils’ scores :
  + If the pupil’s spelling is correct - 2 marks
  + If there is a minor error - 1 mark
  + If there is a major error - 0 mark
* Provide analysis of pupil progress in a database
* Type each word into the computer in response to the definition being displayed.

Assumptions:

* On windows
* Primary schools colours
* A / for correct words, a X for incorrect and a - for minor errors
  + A minor error is when the word has the **correct starting letter and correct word length but the word is wrong**
* Add edit and delete records for the pupils
* School badge in top right corner
* Spelling Bee in lower right corner
* There may be dyslexics, have fonts which are best for dyslexics.
* Merit assembly- highlight all pupils who averages go up by 10% or more on their spelling test from the previous month
* To prevent cheating teacher will be present during the test
* Teacher can correctly spell the words their entering into the database
* There will be more than one form
* UI is graphical
* Data will be directly inputted into the system
* Going to be able to print off the definitions and words as well as pupil results

Limitations:

* VB 6 only runs on windows
* All pupils doing same test
* Spell check is not available for teachers when entering new words and definitions

Objectives:

* Create a UI that is easy to navigate and simple so that primary school pupils can use it
* Log in will require a username and password for every pupil and member of staff
* After log in a form will appear which shows pupils progress and allows them to load this week’s spelling test
* If logged in as a pupil:
  + List of definitions will appear with a text box below each one for the pupils to type in the correct word
  + At the bottom of the test for their will be a return and a submit button, return returns them to log in and submit: marks, reports and stores the pupils score
  + After a successful submission a message box will appear stating well done after this you can log out.
* If logged in as a teacher
  + Display another form with command buttons to add: new test, add/remove pupils ,and scores for last week:

Justification:

* VB runs on all windows machines after Windows 95 and thus should run all computers running windows in the school.
* Access is available to nearly all schools and thus it makes sense to use this and it is also made by Microsoft so it is easy to link using the ADO’s on VB6.

Data structures:

* Access Database:
  + 1 table for Pupils and Teachers
    - Forename, Surname, Username, DOB, Permission level
  + 1 table for results
    - 1 field for username, 1 field per weeks test, and 1 field for average score
  + 1 table for Words and definitions
    - Word, Definition

User Interface:

Hardware and Software Requirements:

* The school will be required to have computers with windows running on it
* Input Hardware:
  + Keyboard - to enter data such as the test itself
  + A mouse – to be able to use click command buttons
  + A printer - to be able to print off data such as the practise sheets for that weeks test
* Program will run on both laptops and desktops however a school is most likely to have desktops
* Drivers for the hardware will be required i.e. the driver for their printer

Processing Stages

Evaluation criteria