Application Name: Vocabuilder

Programming Languages Implementation: VB.Net, Java

Database: Postgresql 14.0

IDE: Visual Studio 2019

OBDC: Npgsql 6.0.1

API: Oxford Dictionaries API

Start Date: 12/12/2021

End Date: 12/31/2021

User Stories

1. As a user, I want to be able to add words to learn in the database so that I can learn them later.
2. As a user, I want to be able to create flash cards automatically given the words so that I only have to input the words that I want to learn and the software would automatically create a flash card for it.
3. As a user, I want to be able to use a space repetition system to learn the words over a five year period.
4. As a user, I want to be able to set how many words I’m going to learn and relearn for a day so that I can manage the amount of words I’m learning and reviewing.
5. As a user, I want to see a calendar view of the words that I learned and the words I will review in the future so that I can track my progress and plan for my learning.

**As a user, I want to be able to add words to learn in the database so that I can learn them later.**

Database Name: vocabuilder

|  |
| --- |
| **Wordtype** |
| wordtypeid |
| description |

Table structure

|  |
| --- |
| **Words** |
| Word id |
| Word |
| Word type id |
| Sense id |
| Date added |
| Wordstateid |

|  |
| --- |
| **Wordlog** |
| Date Updated |
| Word id |

|  |  |
| --- | --- |
| Wordtype | |
| Wordtypeid | Description |
| 1 | Noun |
| 2 | Verb |
| 3 | Adjectives |
| 4 | Adverb |
|  |  |

Components: Multiline textbox, Button

Methods:

Add method

1. Check if words are valid
2. Check if words already exist in database
3. Display confirmation of list of new words to be added
4. Insert to database all the new and valid words
5. Clear textbox

**As a user, I want to be able to create flash cards automatically given the words so that I only have to input the words that I want to learn and the software would automatically create a flash card for it.**

Table structure:

|  |
| --- |
| **Wordstate** |
| Wordstateid |
| Description |

|  |  |
| --- | --- |
| **Wordstate** | |
| Wordstateid | Description |
| 1 | New |
| 2 | Learning |
| 3 | Mastered |
| 4 | Archived |

Methods:

Method 1

* Purpose: Determine the words to be reviewed for a specific day
* Input: Date, Wordlog
* Output: Words
* Procedure
  1. Take all the words in words table with wordstate=Learning and store them in an array or datatable.

Method 2

* Purpose: Determine the words to be studied for a specific day
* Input: Date
* Output: Words
* Procedure
  1. Take all the words in words table with wordstate=new and store them in an array or datatable.