ITP20003 Java Programming

# Lab 2. Play String

# Teams for Lab 2

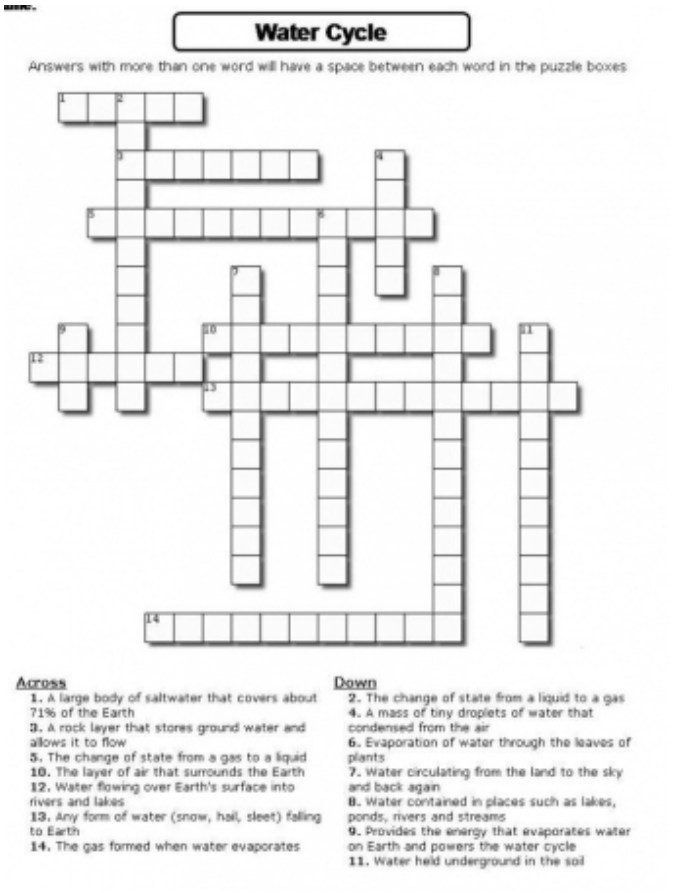
| | | |
|---|---|---|
| Team1 | 박혜빈 | 심충일 |
| Team2 | 윤석규 | 김아론 |
| Team3 | 이종원 | 이한빈 |
| Team4 | 김소은 | 황보효정 |
| Team5 | 김지민 | 이혁재 |
| Team6 | 전혜원 | Wongani |
| Team7 | 유채우 | 박수현 |
| Team8 | 백주열 | 양예진 |
| Team9 | 김시온 | 김재윤 |
| Team10 | 김예군 | 이지행 |

# Lab 2

- Java String Basics
- Two examples
  - Crossword puzzle helper
  - Bible verse getter
- Two Missions: M3 and M4 (50 min)
  - work as a team

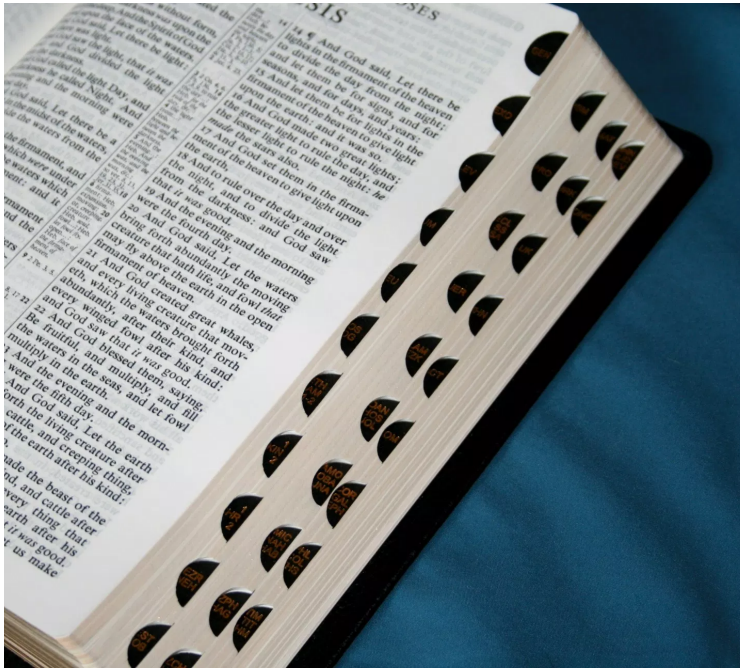
# Crossword Puzzle Helper

Help a person find an answer by checking all words each of which contains all given clues by searching through a word set



# Bible Verse Getter

- Return the Bible verse when the user enters a book name, a chapter number and a verse number



# M3. Did You Mean?

- For a strange input word suspected as a typo, Google finds words that are *structurally close* to the input word, and then returns a suggestion to the user by saying "*Did you mean ...?*"

- Write DidYouMean.java which finds out all words structurally close to a given input word
  - Two words $w_1$ and $w_2$ are structurally close if $w_1$ becomes identical to $w_2$ in a case-insensitive way once one character in $w_1$ is replaced with another alphabet. e.g., "recruet"~ "recruit"
  - Receive an input word as a command line argument, and print out the result to the console (i.e., standard output)
    - An input word consists only of upper and lower case alphabets
  - Use wordset.txt which was used by CrosswordHelper

# M4. Bible Verse Search

- Write VerseSearch.java that searches Bible verses according to given keywords
  - Use NIV.txt which was used by VerseGetter
  - Receive one or multiple keywords by command-line arguments

- A keyword has a string and it can be positive or negative
  - A positive keyword consists of only alphabets including lower- and upper-cases. It assert that a target verse must contain the keyword
  - A negative keyword starts with '-' and an alphabet string follow. It asserts that the string must not be contained in the verse.

- VerseSearch should print all verses each of which contains all given positive keywords while no negative keywords at the same time
  - A keyword match should be done in a case-insensitive way