Choose ONE of the following problems:

1. TIC-TAC-TOE
2. Congkak
3. Translator (English $\leftarrow\rightarrow$ Malay)
4. Calculator

Problem description:

1. TIC-TAC-TOE

TIC-TAC-TOE is a pencil-and-paper game for two players, X and O, who take turns marking the spaces in a 3×3 grid. The X player usually goes first. The player who succeeds in placing three respective marks in a horizontal, vertical, or diagonal row wins the game.

![Tic-Tac-Toe Game Board]

2. Congkak

The Congkak board has fourteen holes in two sets of seven, plus an additional bigger store-holes for each player. Each player controls the seven holes on their side of the board, and their score is the number of seeds in their left-hand store. A total of 98 pieces are used in the two sets of seven board version. Seven seeds are placed in each hole except for the players' store.

The objective of the game is to capture more seeds than one's opponent. Players take turns moving the seeds except in the first move which is performed simultaneously, beginning with the hole closest to his/her own store. After this first simultaneous movement, once the last seed falls into an empty hole, the players' first turn is over and the opponent of the player who reached an empty hole first commences his/her turn after the other player has finished his opening move too. On a turn, a player chooses one of the seven holes under their control. The player removes all seeds from this hole, and distributes them in each hole clockwise from this hole, in a process called sowing. Sowing skips an opponent’s store, but does not skip a player's own store.

Note:

You are expected to apply list and/or dynamic predicate in your solution.
If a player is unable to fill a hole with seven seeds that hole is considered *sunog* ("burnt"); all excess seeds are returned to the store. The round begins with the player with no *sunog* holes taking his/her turn sowing first.

If the last seed falls into an occupied hole, all the seeds are removed from that hole, and are sown starting from that hole. The process continues until the last seed falls into a player’s store, or an empty hole.

If the last seed sown falls into a player’s own store, they immediately earn another turn, which can begin at any of the seven holes under their control.

The game ends, when a player has no seeds in his holes at the start of his turn. The remaining seeds are awarded to his opponent.

3. Translator (English ↔ Malay)

Translator is a simple program that translates word (English or Malay) into either English or Malay. For the requirement of this project, translator should be able to accept a paragraph of text (English or Malay or Mix-both) and translate into opposite language (English to Malay and Malay to English). If the word is not available in the dictionary, the word will remain as it is (not translated).

4. Calculator

Develop a simple calculator that can perform addition, deduction, multiplication and division. The input should be entered by pressing the button.