Object Oriented Programming – Revision Exercise

1. Develop an application that allows the user to play a Hangman game. The game should store a secret word (which you can choose and hard code in to a variable) and allow the user to guess the word one letter at a time. The game should begin by printing a \* for every letter in the word. When the user guesses a letter correctly, that letter should replace the appropriate \* and the updated string should be printed to the user.

For example, if the secret word is house, the application first prints \*\*\*\*\* and when the user guesses the letter o the output should be \*o\*\*\*.

1. Add functionality to the app to allow the user to guess a letter 10 times and give the appropriate output each time
2. Add further functionality to check if the user has guessed the word completely. If they have, stop allowing guesses and output a message “Congratulations, you win!”. If they have not guessed the full word correctly, continue playing the game until they reach 10 guesses.
3. Give the user an instruction at the start of the game to inform them that they have 5 lives. Each time they guess a letter which is not present in the word one life is lost. When all lives have gone, the game should end.
4. Modify the application so that rather than hard coding one secret word, 10 words are stored in an array and when the program is run, one word is chosen at random as the secret word.
5. Finally, modify the application so that when the game ends the user is asked would they like to play again. At this point, a new secret word should be chosen and the lives and guesses reset to 5 and 10.