```
<include <iostream#
                                                      <include <string#
                                                     <include <vector#
                                                     <include <cstdlib#
                                                      <include <ctime#
                                                  ;using namespace std
                                                Set up a list of words //
;vector<string> words = {"apple", "banana", "cherry", "orange", "pear"}
                          Generate a random index to choose a word //
                             ;()int random_index = rand() % words.size
                                      Choose the word to be guessed //
                                   ;string word = words[random_index]
                                             Initialize game variables //
                                             ;int guesses_remaining = 6
                                         ;vector<char> guessed_letters
                           ;string current_state = string(word.size(), '_')
                            Function to check if a letter is in the word //
                            } bool check_letter(char letter, string word)
                                                  ;bool found = false
                                   } for (int i = 0; i < word.size(); i++)
                                            } if (word[i] == letter)
                                                  ;found = true
                                                         ;break
                                                                 {
```

```
;return found
                                                            } ()int main
         srand(time(NULL)); // seed the random number generator
                                           Print welcome message //
           ;cout << "Welcome to the word guessing game!" << endl
Loop until the user either guesses the word or runs out of guesses //
          } while (guesses_remaining > 0 && current_state != word)
                                Print current state of the game //
   ;cout << "Guesses remaining: " << guesses_remaining << endl
                                      ;" :cout << "Guessed letters
                               } for (char letter : guessed_letters)
                                          ;" " >> cout << letter
                                                                 {
                                                     ;cout << endl
               ;cout << "Current state: " << current_state << endl
                              Prompt the user to guess a letter //
                                                       ;char guess
                                        ;" :cout << "Guess a letter
                                                     ;cin >> guess
                               Check if the letter is in the word //
                                   } if (check_letter(guess, word))
                              ;cout << "Correct guess!" << endl
                       Update the current state of the word //
                             } for (int i = 0; i < word.size(); i++)</pre>
                                      } if (word[i] == guess)
```

{

```
{
                                                                               {
                                                                           } else {
                                             ;cout << "Incorrect guess." << endl
                                  Decrease the number of guesses remaining //
                                                          ;--guesses_remaining
                                                                                 {
                             Add the guessed letter to the list of guessed letters //
                                                ;guessed_letters.push_back(guess)
                                                                                    {
                                                   Print the final state of the game //
                        ;cout << "Guesses remaining: " << guesses_remaining << endl
                                                         ;" :cout << "Guessed letters
                                                  } for (char letter : guessed_letters)
                                                              ;" " >> cout << letter
                                                                                    {
                                                                        ;cout << endl
                                      ;cout << "Final state: " << current_state << endl
                                                       Print the result of the game //
                                                          } if (current_state == word)
                           ;cout << "Congratulations, you won the game!" << endl
                                                                              } else {
cout << "Game over. You ran out of guesses and lost the game. The word was " <<
                                                                    ;word << "." << endl
                                                                                    {
                                                                            ;return 0
                                                                                       {
```

;current_state[i] = guess