Muhammad Ali s/o Muhammad Raza Form Number: 655835 Seat No: B23110006087 Exercise 1: #include #include #include #include using namespace std; struct MatchResult { string homeTeam; int homeGoals; string awayTeam; int awayGoals; }; vector parseResults(const string& input) { vector results; stringstream stream(input); string token; while (getline(stream, token, ',')) { stringstream lineStream(token); MatchResult result; lineStream >> result.homeTeam >> result.homeGoals; lineStream >> result.awayTeam >> result.awayGoals; results.push_back(result); } return results; } int main() { string input = "Barca 1 Sevilla 0, RealMadrid 1 Barca 1, Barca 3 Valencia 1, Villarreal 2 Barca 1, Espanyol 2 Barca 4"; string teamName; cout<<"Enter Team Name that you want to see the result"<>teamName; int wins = 0, draws = 0, losses = 0, homeGames = 0, goalsScored = 0, goalsConceded = 0, points = 0; auto results = parseResults(input); for (const auto& result : results) { if (result.homeTeam == teamName) { homeGames++; goalsScored += result.homeGoals; goalsConceded += result.awayGoals; if (result.homeGoals > result.awayGoals) { wins++; points += 3; } else if (result.homeGoals == result.awayGoals) { draws++; points += 1; } else { losses++; } } else if (result.awayTeam == teamName) { goalsScored += result.awayGoals; goalsConceded += result.homeGoals; if (result.awayGoals > result.homeGoals) { wins++; points += 3; } else if (result.awayGoals == result.homeGoals) { draws++; points += 1; } else { losses++; } } } cout << "Barca Wins: " << wins < using namespace std; string removex(string inp, int len) { if (len < 0) return ""; if (inp[len] == 'x' || inp[len] == 'X') return removex(inp, len - 1); return removex(inp, len - 1) + inp[len]; // Corrected recursive call } int main() { string inp; cout << "Enter your String" << endl; cin >> inp; string res = removex(inp, inp.length() - 1); cout << res; return 0; } Exercise 3: #include #include using namespace std; int b=0,c=0,l{0}; bool Isvaild(string inp){ if (inp.length() <10) { return false; exit(1); } while(inp[b]!='\0'){ if (!isalnum(inp[b])){ return false; break; } if (isdigit(inp[b])){ c++; } if (islower(inp[b])||isupper(inp[b])){ l++; } b++; } if (!(c>1)&&(l>0)) return false; } int main() { string inp; cout << "Enter your String" << endl; cin >> inp; bool res = Isvaild(inp); // Corrected index if (res){ cout<<"Vaild"< #include #include using namespace std; int wordCounter{0},senCounter{0},artCounter{0},wordcontain{0}; vector words,sen; void WordPrint(void){ for (const auto& item : words) { cout << item << endl; } } void SenPrint(void){ for (const auto& item : sen) { cout << item << endl; } } void Sen(void){ for (const auto& item : words) { sen.push_back(item); } } void Replace(const string& fword,string& rword){ for (auto& item : words) { if (item==fword){ item = rword; } } WordPrint(); } void sentence(stringstream& sso){ string token; while (getline(sso, token, '.')) { sen.push_back(token); senCounter++; } } void breakword(stringstream& sso){ string token; while (getline(sso, token, ' ')) { if (!token.empty() && token.back() == '.') { token.pop_back(); // Remove the period from the end } if (token=="a"||token=="an"||token=="the"){ artCounter++; } words.push_back(token); wordCounter++; } } int main() { int choose; string par; cout << "Enter Your Paragraph" << endl; getline(cin, par); stringstream sso(par),ssi(par); breakword(sso); cout<<"Choose the Option by Pressing Number\n1.Find and Replace Words\n2.WordCounter\n3.Sentence \n4 . Articles Counter\n5. Space \n6. Exits"<>choose; switch(choose){ case 1: {string fword,rword; cout<<"Enter a word to find"<>fword; cout<<"Enter a word to Replace"<>rword; Replace(fword,rword); break;} case 2: {cout<<"Number of Word in Paragrah is: "<