**LAPORAN TUGAS KECIL 1**

**IF2211 STRATEGI ALGORITMA**

# Penyelesaian *Word Search Puzzle* dengan Algoritma *Brute Force*


**Disusun oleh:**

Ilham Bintang Nurmansyah 13520102

**Program Studi Teknik Informatika**

**Sekolah Teknik Elektro dan Informatika**

**Institut Teknologi Bandung**

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## 1. PENJELASAN ALGORITMA *BRUTE FORCE*

Algoritma yang saya lakukan yaitu melakukan loop terhadap soal (baris dan kolom) lalu didalam loop itu saya lakukan lagi loop jawaban (baris dan kolom juga). Lalu saya melakukan perbandingan antara huruf depan dari jawaban dan setiap huruf dari soal. Jika ada huruf yang sama dengan huruf depan dari jawaban, maka akan dilakukan pengecekan pada 8 arah yaitu kanan, kiri, atas, bawah, kanan atas, kanan bawah, kiri atas, dan kiri bawah. Masing masing arah akan mengecek huruf kedua dari jawaban. Jika salah satu arah salah, maka akan dilanjutkan dengan pengecekan ke arah lainnya. Jika arah benar, maka setiap index akan disimpan didalam array untuk kemudian di print dengan warna yang berbeda bila jawaban sudah ditemukan semua.

## 2. *SOURCE CODE* PROGRAM

Main.cpp M

src > Main.cpp > ...

```cpp
#include <iostream>       You, 2 days ago • test case file lain
#include <fstream>
#include <string>
#include <vector>
#include <charconv>
#include <chrono>
using namespace std;
using namespace std::chrono;

// masukin index nya ke 2 vector berbeda aja terus nanti index yg di print nya dari 2 vector itu

bool checkIndex(int idxi, int idxj, vector<vector<int>> idsi, vector<vector<int>> idsj){
    for(int i=0; i<idsi.size();i++){
        for(int j=0;j<idsi[i].size();j++){
            if(idsi[i][j]==idxi && idsj[i][j]==idxj){
                return true;
            }
        }
    }
    return false;
}

int main(){
    int n;
    vector<string> jawab;
    string plc;
    vector<char> ans;
    vector<string> soal;
    string kosong;
    vector<int> indexi;
    vector<int> indexj;
    vector<vector<int>> indicesi;
    vector<vector<int>> indicesj;
    int check = 0;
    int huruf = 0;
    string filename;

    // input dari user
    cout << "Masukkan nama file (spesifik dengan tempatnya): ";
```

```cpp
    cin >> filename;
    ifstream myfile(filename);

    cout << "Masukan banyak baris soal: ";
    cin >> n;
    // Ambil data dari file & parsing
    if(!myfile){
        cout << "Error opening output file" << endl;
        system("pause");
        return -1;
    }

    for(int i = 0; i<n;i++){
        getline(myfile, kosong, '\n');
        soal.push_back(kosong);
    }


    for(int i = 0; i<n;i++){
        for(int j = 0; j<soal[0].size();j++){
            if(soal[i][j] == ' '){
                soal[i].erase(j,1);
            }
        }
    }

    for(int k = 0; k<2;k++){
        getline(myfile, kosong, '\n');
    }

    int i = 0;
    while(getline(myfile, plc, '\n')){
        jawab.push_back(plc);
        i++;
    }

    auto start = high_resolution_clock::now();      You, a minute ago • Uncommitted changes

    for(int i = 0; i<jawab.size();i++){ // looping jawaban ke bawah
```

```
        int count = 0;
        ans.clear();
        indexi.clear();
        indexj.clear();
        int j =0;
        for(int k=0;k<soal.size();k++){ // looping soal ke bawah
            ans.clear();
            indexi.clear();
            indexj.clear();
            count = 0;
            for(int l=0;l<soal[0].length();l++){ // looping soal ke samping
                ans.clear();
                indexi.clear();
                indexj.clear();
                count = 0;
                if(jawab[i][j] == soal[k][l]){ // kalo jawaban sama dengan soal
                    huruf += 1;
                    if(jawab[i][j+1]== soal[k][l+1] && jawab[i][j+2]== soal[k][l+2] && j!= jawab[i].length()-1){ // kalo jawaban+1 sama dengan soa
                            huruf += 1;
                            for(int m=0;m<jawab[i].length();m++){ // looping jawaban ke samping
                                for(int n=l;n<soal[0].length();n++){ // looping soal ke samping
                                    n += count;
                                    if(jawab[i][m] == soal[k][n]){
                                        huruf += 1;
                                        indexi.push_back(k);
                                        indexj.push_back(n);
                                        ans.push_back(soal[k][n]); // disini
                                        n = soal[0].length();
                                        count++;
                                        if(count == jawab[i].length()){
                                            l = soal[0].length();
                                            k = soal.size();
                                            for(int x=0;x<ans.size();x++){
                                                // cout << ans[x];
                                            }
                                            indicesi.push_back(indexi);
                                            indicesj.push_back(indexj);
                                            count = 0;       You, 2 days ago • test case file lain
                                            // cout << "\n";
                                        }
                                    }
                                }
                            }
                    }
                    else if(jawab[i][j+1]== soal[k][l-1] && jawab[i][j+2]== soal[k][l-2] &&  j!= jawab[i].length()-1){ // kalo jawaban+1 sama deng
                            huruf += 1;
                            for(int m=0;m<jawab[i].length();m++){ // looping jawaban ke samping
                                for(int n=l;n>=0;n--){ // looping soal ke samping
                                    n -= count;
                                    if(jawab[i][m] == soal[k][n]){
                                        huruf += 1;
                                        indexi.push_back(k);
                                        indexj.push_back(n);
                                        ans.push_back(soal[k][n]);
                                        n = -1;
                                        count++;
                                        if(count == jawab[i].length()){
                                            l = soal[0].length();;
                                            m = jawab[i].length();
                                            k = soal.size();
                                            n = -1;
                                            for(int x=0;x<ans.size();x++){
                                                // cout << ans[x];
                                            }
                                            indicesi.push_back(indexi);
                                            indicesj.push_back(indexj);
                                            count = 0;
                                            // cout << "\n";
                                        }
                                    }
                                }
                            }
                    }
                }
                else if(k == soal.size()-2 || k == soal.size()-1){
                    huruf +=1;
                    if((jawab[i][j+1] == soal[k-1][l]) && jawab[i][j+2] == soal[k-2][l]){
                            huruf +=1;          You, 2 minutes ago • Uncommitted changes
                            for(int m=0;m<jawab[i].length();m++){
```

src > Main.cpp > main()

```
156                             for(int m=0;m<jawab[i].length();m++){
157                                 for(int n=k-count;n>=0;n--){
158                                     if(jawab[i][m] == soal[n][l] && (n!= 0 || count == jawab[i].length()-1)){
159                                         huruf +=1;
160                                         indexi.push_back(n);
161                                         indexj.push_back(l);
162                                         ans.push_back(soal[n][l]);
163                                         n = 0;
164                                         count++;
165                                         if(count == jawab[i].length()){
166                                             for(int x=0;x<ans.size();x++){
167                                                 // cout << ans[x];
168                                             }
169                                             indicesi.push_back(indexi);
170                                             indicesj.push_back(indexj);
171                                             count = 0;
172                                             n = 0;
173                                             m = jawab[i].length();
174                                             l = soal[0].length();      You, 2 days ago • test case file lain
175                                             k = soal.size();
176                                             // cout << "\n";
177                                         }
178                                     }
179                                     else if (n == 0 && count != jawab[i].length()-1){
180                                         n = 0;
181                                         m = jawab[i].length();
182                                     }
183                                 }
184                             }
185 
186                         }
187                         else if(jawab[i][j+1] == soal[k-1][l-1]){
188                             huruf +=1;
189                             for(int m=0;m<jawab[i].length();m++){
190                                 for(int n=k;n>=0;n -= count){ // loop bawah soal
191                                     for(int o=l;o>=0;o--){
192                                         o -= count; // loop kanan soal
193                                         if(jawab[i][m] == soal[n][o] && (n!= 0 || count == jawab[i].length()-1)){
194                                             huruf +=1;
```

```
195                                             indexi.push_back(n);
196                                             indexj.push_back(o);
197                                             ans.push_back(soal[n][o]);
198                                             o = 0;
199                                             n = -1;
200                                             count++;
201                                             if(count == jawab[i].length()){
202                                                 for(int x=0;x<ans.size();x++){
203                                                     // cout << ans[x];
204                                                 }
205                                                 indicesi.push_back(indexi);
206                                                 indicesj.push_back(indexj);
207                                                 count = 0;
208                                                 o = 0;
209                                                 n = -1;
210                                                 m = jawab[i].length();
211                                                 l = soal[0].length();
212                                                 k = soal.size();
213                                                 // cout << "\n";
214                                             }
215                                         }
216                                         else if (n == 0 && count != jawab[i].length()-1){
217                                             o = 0;
218                                             n = -1;
219                                             m = jawab[i].length();
220                                         }
221                                     }
222                                 }
223                             }
224                         }
225                         else if(jawab[i][j+1] == soal[k-1][l+1]){
226                             huruf +=1;
227                             for(int m=0;m<jawab[i].length();m++){
228                                 for(int n=k;n>=0;n -= count){
229                                     for(int o=l;o<soal[0].length();o++){
230                                         o += count;
231                                         if(jawab[i][m] == soal[n][o]  && (n!= 0 || count == jawab[i].length()-1)){
232                                             huruf +=1;      You, 3 minutes ago • Uncommitted changes
233                                             indexi.push_back(n);
```

```
                                    indexj.push_back(o);
                                    ans.push_back(soal[n][o]);
                                    o = soal[0].length();
                                    n = -1;
                                    count ++;
                                    if(count == jawab[i].length()){
                                        for(int x=0;x<ans.size();x++){
                                            // cout << ans[x];
                                        }
                                        indicesi.push_back(indexi);
                                        indicesj.push_back(indexj);
                                        count = 0;
                                        o = soal[0].length();
                                        n = -1;
                                        m = jawab[i].length();
                                        l = soal[0].length();
                                        k = soal.size();
                                        // cout << "\n";
                                    }
                                }
                                else if (n == 0 && count != jawab[i].length()-1){
                                    o = soal[0].length();
                                    n = -1;
                                    m = jawab[i].length();
                                }
                            }
                        }
                    }
                }
            }
        }
        else if(k == 0 || k == 1){
            huruf +=1;
            if((jawab[i][j+1] == soal[k+1][l]) && (jawab[i][j+2] == soal[k+2][l])){ // kebawah
                        huruf +=1;
                        for(int m=0;m<jawab[i].length();m++){
                            for(int n=k+count;n<soal.size();n++){
                                if(jawab[i][m] == soal[n][l] && (n!= soal.size()-1 || count == jawab[i].length()-1)){
                                    huruf +=1;      You, 3 minutes ago • Uncommitted changes
                                    indexi.push_back(n);
```

```
                                    indexj.push_back(l);
                                    ans.push_back(soal[n][l]);
                                    n = soal.size();
                                    count++;
                                    if(count == jawab[i].length()){
                                        for(int x=0;x<ans.size();x++){
                                            // cout << ans[x];
                                        }
                                        indicesi.push_back(indexi);
                                        indicesj.push_back(indexj);
                                        count = 0;
                                        n = soal.size();
                                        m = jawab[i].length();
                                        l = soal[0].length();
                                        k = soal.size();
                                        // cout << "\n";
                                    }
                                }else if (n == soal.size()-1 && count != jawab[i].length()-1){
                                    n = soal.size();
                                    m = jawab[i].length();
                                }
                            }
                        }
                    }
                }
            }
        else if(jawab[i][j+1] == soal[k+1][l+1] && jawab[i][j+2] == soal[k+2][l+2]){
                    huruf +=1;
                    for(int m=0;m<jawab[i].length();m++){
                        for(int n=k+count;n<soal.size();n += count){ // loop bawah soal
                            for(int o=l;o<soal[0].length();o++){
                                o += count; // loop kanan soal
                                if(jawab[i][m] == soal[n][o] && (n!= soal.size()-1 || count == jawab[i].length()-1)){
                                    huruf +=1;
                                    indexi.push_back(n);
                                    indexj.push_back(o);
                                    ans.push_back(soal[n][o]);
                                    o = soal[0].length();
                                    n = soal.size();
                                    count++;      You, 2 days ago • test case file lain
                                    if(count == jawab[i].length()){
```

```
                                        for(int x=0;x<ans.size();x++){
                                            // cout << ans[x];
                                        }
                                        indicesi.push_back(indexi);
                                        indicesj.push_back(indexj);
                                        count = 0;
                                        o = soal[0].length();
                                        n = soal.size();
                                        m = jawab[i].length();
                                        l = soal[0].length();
                                        k = soal.size();
                                        // cout << "\n";
                                    }
                                }
                                else if(n == soal.size()-1 && count != jawab[i].length()-1){
                                    o = soal[0].length();
                                    n = soal.size();
                                    m = jawab[i].length();
                                }
                            }
                        }
                    }
                }
            else if(jawab[i][j+1] == soal[k+1][l-1] && jawab[i][j+2] == soal[k+2][l-2]){
                huruf +=1;
                for(int m=0;m<jawab[i].length();m++){
                        for(int n=k+count;n<soal.size();n += count){
                            for(int o=l;o>=0;o--){
                                o -= count;
                                if(jawab[i][m] == soal[n][o] && (n!= soal.size()-1 || count == jawab[i].length()-1)){
                                    huruf +=1;
                                    indexi.push_back(n);
                                    indexj.push_back(o);
                                    ans.push_back(soal[n][o]);
                                    o = -1;
                                    n = soal.size();
                                    count ++;
                                    if(count == jawab[i].length()){      You, 2 days ago • test case file lain
                                        for(int x=0;x<ans.size();x++){
```

```
                                            // cout << ans[x];
                                        }
                                        indicesi.push_back(indexi);
                                        indicesj.push_back(indexj);
                                        count = 0;
                                        o = -1;
                                        n = soal.size();
                                        m = jawab[i].length();
                                        l = soal[0].length();
                                        k = soal.size();
                                        // cout << "\n";
                                    }
                                }
                                else if(n == soal.size()-1 && count != jawab[i].length()-1){
                                    o = 0;
                                    n = soal.size();
                                    m = jawab[i].length();
                                }
                            }
                        }
                    }
                }
            }
        }
    }
    else{
        huruf +=1;
        if((jawab[i][j+1] == soal[k-1][l] && jawab[i][j+2] == soal[k-2][l])){ // kebawah
                    huruf +=1;
                    for(int m=0;m<jawab[i].length();m++){
                        for(int n=k-count;n>=0;n--){
                            if(jawab[i][m] == soal[n][l] && (n!= 0 || count == jawab[i].length()-1)){
                                indexi.push_back(n);
                                indexj.push_back(l);
                                ans.push_back(soal[n][l]);
                                n = 0;
                                count++;
                                if(count == jawab[i].length()){
                                    for(int x=0;x<ans.size();x++){
                                        // cout << ans[x];       You, 8 hours ago • code beres
                                    }
```

```
390                                     indicesi.push_back(indexi);
391                                     indicesj.push_back(indexj);
392                                     count = 0;
393                                     n = 0;
394                                     m = jawab[i].length();
395                                     l = soal[0].length();
396                                     k = soal.size();
397                                     // cout << "\n";
398                                 }
399                             }
400                             else if (n == 0 && count != jawab[i].length()-1){
401                                 n = 0;
402                                 m = jawab[i].length();
403                             }
404                         }
405                     }
406                 }
407                 else if(jawab[i][j+1] == soal[k-1][l-1] && jawab[i][j+2] == soal[k-2][l-2]){ // kiri bawah
408                     huruf +=1;
409                     for(int m=0;m<jawab[i].length();m++){
410                         for(int n=k-count;n>=0;n -= count){ // loop bawah soal
411                             for(int o=l;o>=0;o--){
412                                 o -= count; // loop kanan soal
413                                 if(jawab[i][m] == soal[n][o] && (n!= 0 || count == jawab[i].length()-1)){
414                                     huruf +=1;
415                                     indexi.push_back(n);
416                                     indexj.push_back(o);
417                                     ans.push_back(soal[n][o]);
418                                     o = -1;
419                                     n = -1;
420                                     count++;
421                                     if(count == jawab[i].length()){
422                                         for(int x=0;x<ans.size();x++){
423                                             // cout << ans[x];
424                                         }
425                                         indicesi.push_back(indexi);
426                                         indicesj.push_back(indexj);
427                                         count = 0;       You, 2 days ago • test case file lain
428                                         o = 0;
```

```
429                                     n = -1;
430                                     m = jawab[i].length();
431                                     l = soal[0].length();
432                                     k = soal.size();
433                                     // cout << "\n";
434                                 }
435                             }
436                             else if(n == 0 && count != jawab[i].length()-1){
437                                 n = -1;
438                                 o = 0;
439                                 m = jawab[i].length();
440                             }
441                         }
442                     }
443                 }
444             }
445             else if(jawab[i][j+1] == soal[k-1][l+1] && jawab[i][j+2] == soal[k-2][l+2]){
446                 huruf +=1;
447                 for(int m=0;m<jawab[i].length();m++){
448                     for(int n=k-count;n>=0;n -= count){
449                         for(int o=l;o<soal[0].length();o++){
450                             o += count;
451                             if(jawab[i][m] == soal[n][o] && (n!= 0 || count == jawab[i].length()-1)){
452                                 huruf +=1;
453                                 indexi.push_back(n);
454                                 indexj.push_back(o);
455                                 ans.push_back(soal[n][o]);
456                                 o = soal[0].length();
457                                 n = -1;
458                                 count ++;
459                                 if(count == jawab[i].length()){
460                                     for(int x=0;x<ans.size();x++){
461                                         // cout << ans[x];
462                                     }
463                                     indicesi.push_back(indexi);
464                                     indicesj.push_back(indexj);
465                                     count = 0;
466                                     o = soal[0].length();       You, 2 days ago • test case file lain
467                                     n = -1;
```

```
                                    n = -1;
                                    m = jawab[i].length();
                                    l = soal[0].length();
                                    k = soal.size();
                                    // cout << "\n";
                                }
                            }
                            else if(n == 0 && count != jawab[i].length()-1){
                                o = soal[0].length();
                                n = 0;
                                m = jawab[i].length();
                            }
                        }
                    }
                }

            }
        else if((jawab[i][j+1] == soal[k+1][l] && jawab[i][j+2] == soal[k+2][l])){ // kebawah
                    huruf +=1;
                    for(int m=0;m<jawab[i].length();m++){
                        for(int n=k+count;n<soal.size();n++){
                            if(jawab[i][m] == soal[n][l] && (n!= soal.size()-1 || count == jawab[i].length()-1)){
                                huruf +=1;
                                indexi.push_back(n);
                                indexj.push_back(l);
                                ans.push_back(soal[n][l]);
                                n = soal.size();
                                count++;
                                if(count == jawab[i].length()){
                                    for(int x=0;x<ans.size();x++){
                                        // cout << ans[x];
                                    }
                                    indicesi.push_back(indexi);
                                    indicesj.push_back(indexj);
                                    count = 0;
                                    n = soal.size();
                                    m = jawab[i].length();
                                    l = soal[0].length();       You, 2 days ago • test case file lain
                                    k = soal.size();
                                    // cout << "\n";
                                }
                            }else if(n == soal.size()-1 && count != jawab[i].length()-1){
                                n = soal.size();
                                m = jawab[i].length();
                            }
                        }
                    }
                }
        }
        else if(jawab[i][j+1] == soal[k+1][l+1] && jawab[i][j+2] == soal[k+2][l+2]){
                huruf +=1;
                for(int m=0;m<jawab[i].length();m++){
                    for(int n=k;n<soal.size();n++){ // loop bawah soal
                        n += count;
                        for(int o=l;o<soal[0].length();o++){
                            o += count; // loop kanan soal
                            if(jawab[i][m] == soal[n][o] && (n!= soal.size()-1 || count == jawab[i].length()-1)){
                                huruf +=1;
                                indexi.push_back(n);
                                indexj.push_back(o);
                                ans.push_back(soal[n][o]);
                                o = soal[0].length();
                                n = soal.size();
                                count++;
                                if(count == jawab[i].length()){
                                    for(int x=0;x<ans.size();x++){
                                        // cout << ans[x];
                                    }
                                    indicesi.push_back(indexi);
                                    indicesj.push_back(indexj);
                                    count = 0;
                                    o = soal[0].length();
                                    n = soal.size();
                                    m = jawab[i].length();
                                    l = soal[0].length();
                                    k = soal.size();
                                    // cout << "\n";
                                }       You, 2 days ago • test case file lain
                            }
```

```
                                        else if(n == soal.size()-1 && count != jawab[i].length()-1){
                                            n = soal.size();
                                            o = soal[0].length();
                                            m = jawab[i].length();
                                        }
                                        else{
                                            o = soal[0].length();
                                            n = soal.size();
                                            m = jawab[i].length();
                                        }
                                    }
                                }
                            }
                        }
                    else if(jawab[i][j+1] == soal[k+1][l-1] && jawab[i][j+2] == soal[k+2][l-2]){
                        huruf +=1;
                        for(int m=0;m<jawab[i].length();m++){
                                for(int n=k+count;n<soal.size();n += count){
                                    for(int o=l;o>=0;o--){
                                        o -= count;
                                        if(jawab[i][m] == soal[n][o] && (n!= soal.size()-1 || count == jawab[i].length()-1)){
                                            huruf +=1;
                                            indexi.push_back(n);
                                            indexj.push_back(o);
                                            ans.push_back(soal[n][o]);
                                            o = 0;
                                            n = soal.size();
                                            count ++;
                                            if(count == jawab[i].length()){
                                                for(int x=0;x<ans.size();x++){
                                                    // cout << ans[x];
                                                }
                                                indicesi.push_back(indexi);
                                                indicesj.push_back(indexj);
                                                count = 0;
                                                o = 0;
                                                n = soal.size();
                                                m = jawab[i].length();      You, 2 days ago • test case file lain
                                                l = soal[0].length();
                                                k = soal.size();
                                                // cout << "\n";
                                            }
                                        }
                                        else if(n == soal.size()-1 && count != jawab[i].length()-1){
                                            n = soal.size();
                                            o = 0;
                                            m = jawab[i].length();
                                        }else{
                                            o = 0;
                                            n = soal.size();
                                            m = jawab[i].length();
                                        }
                                    }
                                }
                            }
                        }
                    }
                    else{
                        huruf +=1;
                    }
                }
            }
    }

    vector<vector<int>> nums (soal.size(), vector<int>(n));

    for(int i=0;i<soal.size();i++){
        for(int j=0;j<soal[0].length();j++){
            nums[i][j] = 9;
        }
    }

    int change =1;
    for(int i=0;i<indicesi.size();i++){
        for(int j=0;j<indicesi[i].size();j++){
            nums[indicesi[i][j]][indicesj[i][j]] = change;      You, 8 hours ago • code beres
        }
```

```
621             nums[indices1[i][j]][indices2[i][j]] = change;
622         }
623         change = (change+1)%6;
624     }
625 
626     for(int i=0;i<soal.size();i++){ // soal kebawah
627         for(int j=0;j<soal[0].length();j++){ // soal kesamping
628             if(nums[i][j] == 0){
629                 cout << "\033[1;31m" << soal[i][j] <<"\033[0m" << " ";
630             }
631             else if(nums[i][j] == 1){
632                 cout << "\033[1;32m" << soal[i][j] <<"\033[0m" << " ";
633             }
634             else if(nums[i][j] == 2){
635                 cout << "\033[1;33m" << soal[i][j] <<"\033[0m" << " ";
636             }
637             else if(nums[i][j] == 3){
638                 cout << "\033[1;34m" << soal[i][j] <<"\033[0m" << " ";
639             }
640             else if(nums[i][j] == 4){
641                 cout << "\033[1;35m" << soal[i][j] <<"\033[0m" << " ";
642             }
643             else if(nums[i][j] == 5){
644                 cout << "\033[1;36m" << soal[i][j] <<"\033[0m" << " ";
645             }else{
646                 cout << soal[i][j] << " ";
647             }
648         }
649         cout << endl;
650     }
651 
652     auto stop = high_resolution_clock::now();
653     auto duration = duration_cast<microseconds>(stop - start);
654     cout << "waktu yang dibutuhkan: " << duration.count() << " microseconds" << endl;
655     cout << "jumlah huruf yang dibandingkan: " << huruf << endl;
656 
657     return 0;
658 }       You, 8 hours ago • code beres
```

## 3. *SCREENSHOT INPUT* DAN *OUTPUT*

### 3.1. Data uji yang berukuran small

```
E D P I X A R P H U Z P A E
I A E O I O I S P D A O E W
S P B S T I N K Y P E T E S
O L I G H T Y E A R S A G N
Y E C E I B R A B T H T C G
T O I N U A S A E S H O Y R
Y Y B B M N G N N E A H O U
O G W W Y D E U E T M E E Z
P Z T S O Y S T O I M A Y Z
Z O X H X C C Y I Y L D O U
Z O C R K J E S S I E A B K
U S E T T S T O R Y E I K L
B X M E P E E P O B A I E S
I S L I N K Y R Y D O O W Y


WOODY
BARBIE
JESSIE
ALIENS
HAMM
PIXAR
REX
COWBOY
STORY
ZURG
LIGHTYEAR      You, 2 days ago • test case file lain
SLINKY
BUZZ
ANDY
```

```
D:\KULIAH\SEMESTER 4\Strategi Algoritma\Tugas\Tugas Kecil\Tucil 1\Code\Tucil-1-Stima\src>.\Main
Masukkan nama file (spesifik dengan tempatnya): ../test/small/Toy.txt
Masukan banyak baris soal: 14
E D P I X A R P H U Z P A E
I A E O I O I S P D A O E W
S P B S T I N K Y P E T E S
O L I G H T Y E A R S A G N
Y E C E I B R A B T H T C G
T O I N U A S A E S H O Y R
Y Y B B M N G N N E A H O U
O G W W Y D E U E T M E E Z
P Z T S O Y S T O I M A Y Z
Z O X H X C C Y I Y L D O U
Z O C R K J E S S I E A B K
U S E T T S T O R Y E I K L
B X M E P E E P O B A I E S
I S L I N K Y R Y D O O W Y
waktu yang dibutuhkan: 25988 microseconds
jumlah huruf yang dibandingkan: 1825
```

```
H C F I Y B P E A C H C I B
C K I B R Y R O D M B F O O
J A C Q U E S F I N D I N G
E C O R A L R E E F B S A H
U H T A N K G A N G A H H S
N N O E C U R B A I H A N I
T A N B B F C R N N S R E F
S C A U A N E M O L S K I N
I I H B L O A T O I N S E W
T L S B B A R R A C U D A O
N E H L B I M A R L I N N L
E P F E H U A D E M U H C C
D O U S E E A E L L E N T U
G U R G L E D D E B M B A J


BLOAT
CLOWNFISH
CORALREEF
DENTIST
BARRACUDA
NEMO
PELICAN
PEACH
FINDING
BRUCE
MARLIN
SHARKS
GURGLE      You, 20 hours ago • ting
ELLEN
DORY
CHUM
JACQUES
BUBBLES
```

```
D:\KULIAH\SEMESTER 4\Strategi Algoritma\Tugas\Tugas Kecil\Tucil 1\Code\Tucil-1-Stima\src>.\Main
Masukkan nama file (spesifik dengan tempatnya): ../test/small/Nemo.txt
Masukan banyak baris soal: 14
H C F I Y B P E A C H C I B
C K I B R Y R O D M B F O O
J A C Q U E S F I N D I N G
E C O R A L R E E F B S A H
U H T A N K G A N G A H H S
N N O E C U R B A I H A N I
T A N B B F C R N N S R E F
S C A U A N E M O L S K I N
I I H B L O A T O I N S E W
T L S B B A R R A C U D A O
N E H L B I M A R L I N N L
E P F E H U A D E M U H C C
D O U S E E A E L L E N T U
G U R G L E D D E B M B A J
waktu yang dibutuhkan: 30240 microseconds
jumlah huruf yang dibandingkan: 2092
```

```
M O N S T R O P O L I S O S
S R S D P L A N I O R L O A
L C D E Y E E N O S S I B S
R O Z Y K R D D I Y C D M R
S R O B D E R K I E I A R A
H C O L M O S L R M E O S N
W I I S I W M O O R O H S D
R H A W O C O C C L G R O A
C O C Z Y D E S F U O R N L
I D A N E L G E A S S M M L
Y W E W I G R L D I S N E Y
I S K A L A S U L L E Y R S
I W I O C M Y G P I X A R D
O M M S A O S R E T S N O M


BOO
DISNEY
WAZOWSKI
SCAREFLOOR
CHILDREN
MONSTROPOLIS
MONSTERS
SULLEY
SCREAMS
CELIA
ONEEYED
DOOR
RANDALL
MIKE
ROZ
PIXAR
LAUGHS
```

```
D:\KULIAH\SEMESTER 4\Strategi Algoritma\Tugas\Tugas Kecil\Tucil 1\Code\Tucil-1-Stima\src>.\Main
Masukkan nama file (spesifik dengan tempatnya): ../test/small/Monster.txt
Masukan banyak baris soal: 14
M O N S T R O P O L I S O S
S R S D P L A N I O R L O A
L C D E Y E E N O S S I B S
R O Z Y K R D D I Y C D M R
S R O B D E R K I E I A R A
H C O L M O S L R M E O S N
W I I S I W M O O R O H S D
R H A W O C O C C L G R O A
C O C Z Y D E S F U O R N L
I D A N E L G E A S S M M L
Y W E W I G R L D I S N E Y
I S K A L A S U L L E Y R S
I W I O C M Y G P I X A R D
O M M S A O S R E T S N O M
waktu yang dibutuhkan: 30537 microseconds
jumlah huruf yang dibandingkan: 2276
```

### 3.2. Data uji yang berukuran medium

```
A S R R F S B G C C O Y A A A E W H Q A H D
Q K D O A P K I B M K M Q L K X R G B V E G
G M H M E R I P M E B G A V V G Q I U S R M
O M C E S D B J S R Z G C U B C A N Y A X O
L N I P S I R C O Z G N X M N C P L N V E W
D I N O E A N S L N O M O D B Z A N H M N S
E D F T R N I K M C C J P S F B Y A A U Q E
N A S B P A U W R I A W A W C S P C C J Y S
D R U C C B Q T N E E M L Q M F G W O J A O
E E O R P W R T R J N U A I K G O G R K Y D
L D I Q S X O E V O I Y T N P F H G T I M T
I F C C V S O G Q A F H V C O J O K L B O R
C V I P H I J U F R W O B K X J N O A R A T
I L L L T Z Y V E L O C K A A W E A N W D W
O M E I V V F T U P I N K L A D Y L D X W Y
U X D H I J G C K N N U O C A M C H Y R P V
S R D B B R A E B U R N Y E E S R G Y K S B
Q Y E Z F J O N A G O L D C G X I F E O R Q
A I R N T D E R A L U A P V Q R S M I M T F
S R A V I U K I K J C B R D Z O P X G V G Z


CAMEO
CORTLAND
CRISPIN
EMPIRE
ENVY
FORTUNE
FUJI
GALA
IDARED
JONAMAC
KIKU
MCINTOSH
OPAL
PINKLADY
ROME
```

```
D:\KULIAH\SEMESTER 4\Strategi Algoritma\Tugas\Tugas Kecil\Tucil 1\Code\Tucil-1-Stima\src>.\Main
Masukkan nama file (spesifik dengan tempatnya): ../test/medium/Apple.txt
Masukan banyak baris soal: 20
A S R R F S B G C C O Y A A A E W H Q A H D
Q K D O A P K I B M K M Q L K X R G B V E G
G M H M E R I P M E B G A V V G Q I U S R M
O M C E S D B J S R Z G C U B C A N Y A X O
L N I P S I R C O Z G N X M N C P L N V E W
D I N O E A N S L N O M O D B Z A N H M N S
E D F T R N I K M C C J P S F B Y A A U Q E
N A S B P A U W R I A W A W C S P C C J Y S
D R U C C B Q T N E E M L Q M F G W O J A O
E E O R P W R T R J N U A I K G O G R K Y D
L D I Q S X O E V O I Y T N P F H G T I M T
I F C C V S O G Q A F H V C O J O K L B O R
C V I P H I J U F R W O B K X J N O A R A T
I L L L T Z Y V E L O C K A A W E A N W D W
O M E I V V F T U P I N K L A D Y L D X W Y
U X D H I J G C K N N U O C A M C H Y R P V
S R D B B R A E B U R N Y E E S R G Y K S B
Q Y E Z F J O N A G O L D C G X I F E O R Q
A I R N T D E R A L U A P V Q R S M I M T F
S R A V I U K I K J C B R D Z O P X G V G Z
waktu yang dibutuhkan: 46703 microseconds
jumlah huruf yang dibandingkan: 2877
```

```
K S J K X I K P P A L A R M C L O C K I B F
A O R N H E A J M A W L U W A A Y G C K W Y
Y N P E T X S J A W Y N S Z Q V F B I D N O
N H R P P J A Y L Z R X N U T W N D X M D Z
C Y I O E P C V P Y S J Y M Z F S I V F K T
M O A U B Z I N W O G G N I S S E R D V D E
D J M C M E N L O C N P R P T M G O F R A S
X H R F A K B R S H I X E P X J P N E P Y O
K L I M O U B Y O L O N M Q K R A S Q P A L
N V Y K X R Y Y L R A S O C L H S B J G M C
T A R B A Q T O J F R O T S E E O O E S Y R
Y S Y H D S W E C E Z I E R R P N T I D M Z
P N Z O U S W B R W I N M F J V O F O D A R
D I K T V S V O L E H L Y A S G X Q L H A O
O A W E E T E L E V I S I O N Z G L D E P R
O T U T T V D U O M S W I N D O W S D R H T
R R R E R V K E K K L K S Q J T K O U S Z S
W U J T E D D Y B E A R E E S Y A G P Y T R
N C N L G V U P I N S A D Y S L Y Q Z Q Z P
V S R H Z A L Q T H G I L O N Y N V A H I P


BED
CLOSET
DOOR
DUVET
FAN
LAMP       You, 21 hours ago • tinggal warnain
LIGHT
MIRROR
PHOTO
PILLOWS
RADIO
REMOTE
ROBE
RUG
SHELF
```

```
D:\KULIAH\SEMESTER 4\Strategi Algoritma\Tugas\Tugas Kecil\Tucil 1\Code\Tucil-1-Stima\src>.\Main
Masukkan nama file (spesifik dengan tempatnya): ../test/medium/Bedroom.txt
Masukan banyak baris soal: 20
K S J K X I K P P A L A R M C L O C K I B F
A O R N H E A J M A W L U W A A Y G C K W Y
Y N P E T X S J A W Y N S Z Q V F B I D N O
N H R P P J A Y L Z R X N U T W N D X M D Z
C Y I O E P C V P Y S J Y M Z F S I V F K T
M O A U B Z I N W O G G N I S S E R D V D E
D J M C M E N L O C N P R P T M G O F R A S
X H R F A K B R S H I X E P X J P N E P Y O
K L I M O U B Y O L O N M Q K R A S Q P A L
N V Y K X R Y Y L R A S O C L H S B J G M C
T A R B A Q T O J F R O T S E E O O E S Y R
Y S Y H D S W E C E Z I E R R P N T I D M Z
P N Z O U S W B R W I N M F J V O F O D A R
D I K T V S V O L E H L Y A S G X Q L H A O
O A W E E T E L E V I S I O N Z G L D E P R
O T U T T V D U O M S W I N D O W S D R H T
R R R E R V K E K K L K S Q J T K O U S Z S
W U J T E D D Y B E A R E E S Y A G P Y T R
N C N L G V U P I N S A D Y S L Y Q Z Q Z P
V S R H Z A L Q T H G I L O N Y N V A H I P
waktu yang dibutuhkan: 45198 microseconds
jumlah huruf yang dibandingkan: 3985
```

```
V H S T R I P E S O R Q J Q Z S X Z R A P V
I T N L A N O O M X E I H L A M M A M S J I
O Z X F G H A W D X T G W O G Y L T A E L S
I R E E E L E I X Z N V E L G N U J S E P Y
C K N W S C H G R R U I C Z N Q O E S O H W
A Z I B U W E M E E H Q L R Q V N W Q G Z Y
R A L B M W W R T O B C A O G I N A I S A Q
N Z E G A R V Z K M O I W S H M A L A Y A N
I U F V T O O W A N D D S C C C Z J T N D E
V S W N R O G T S U J G O U R D T H E O J D
O S D A A Z V E A U E D G Q D O I N X A V T
R P N I N C R S U D N I S T J Z D Q A F M D
E G I N V V N E R I E J B C B A P O E R U N
E R E T A E T A E M C R B S N F W Z X I A C
T F B T L A G N E B X V P G T M I I Q C W H
Q N I O I I K N D L I W E E E J D K B A V G
D O L I A T A T U R Z R E T A E N A M N V V
N C Y U J B A S P W E T Z I X V A Q A P A C
J V B W F B I L G D H X B K H Q T X V N M P
K F F T S G N I R A O R J E Z I P J F M D H

AFRICAN
ASIAN
BENGAL
CLAWS
FELINE
HUNTER
JUNGLE
ORANGE
PREDATOR
ROARING      You, 21 hours ago • tinggal warn
SIBERIAN
STRIPES
TAIL
TEETH
WILD
```

```
D:\KULIAH\SEMESTER 4\Strategi Algoritma\Tugas\Tugas Kecil\Tucil 1\Code\Tucil-1-Stima\src>.\Main
Masukkan nama file (spesifik dengan tempatnya): ../test/medium/Tiger.txt
Masukan banyak baris soal: 20
V H S T R I P E S O R Q J Q Z S X Z R A P V
I T N L A N O O M X E I H L A M M A M S J I
O Z X F G H A W D X T G W O G Y L T A E L S
I R E E E L E I X Z N V E L G N U J S E P Y
C K N W S C H G R R U I C Z N Q O E S O H W
A Z I B U W E M E E H Q L R Q V N W Q G Z Y
R A L B M W W R T O B C A O G I N A I S A Q
N Z E G A R V Z K M O I W S H M A L A Y A N
I U F V T O O W A N D D S C C C Z J T N D E
V S W N R O G T S U J G O U R D T H E O J D
O S D A A Z V E A U E D G Q D O I N X A V T
R P N I N C R S U D N I S T J Z D Q A F M D
E G I N V V N E R I E J B C B A P O E R U N
E R E T A E T A E M C R B S N F W Z X I A C
T F B T L A G N E B X V P G T M I I Q C W H
Q N I O I I K N D L I W E E E J D K B A V G
D O L I A T A T U R Z R E T A E N A M N V V
N C Y U J B A S P W E T Z I X V A Q A P A C
J V B W F B I L G D H X B K H Q T X V N M P
K F F T S G N I R A O R J E Z I P J F M D H
waktu yang dibutuhkan: 47549 microseconds
jumlah huruf yang dibandingkan: 3587
```

### 3.3. Data uji yang berukuran large

```
E T O W U V H F M C Z G S O E E L B T J G B E A E M I L I F G G
G L V T T E P D H W N Z L C Z G Z G D U L K Y T B Z E K J F U T
N Z B D X M W K J M Q K M W Q K R W L A H Z R T E F J W M N A G
A G G U V B C I S X M L Z C Z A P J C T V H E R H X D G P V V M
R O E G R K N W A M M Y E J P E S K N P L I Z T Y E Z N U N A T
O Z E V N P J I N M M U A E Z Z B U D M J U I W P V Y V I W W E
B I W I P H Y P C G S T S Y R E K A J Y Q A C T J L K Y F S F V
B A C E T B I Q D S X O X R R Q Y W I A A Y Z Q M U M R B A N O
A W N K I O Z H M X M C C R F A X Q S F N W J A Z O I O O V P U
X J K A N X M A N T Z I Y H P J B K G D Z R O B Q X E T U A N A
H D J B N G L K O O Y R I A R F H V I N R O I I Z Z F E V R J S
C G W Z L A J T J R H P P P J G X J B Z W Y R J A H E W T G I K
Q Q C J K E Q V F M S A K Y I U C S S H D P J A M V L J W G K R
X F T O J D C Y V D V B Y Z Z N V A N F S J B U J N O I E Z V F
W D G U B Y F S Y L H A P Z M R E A A J I E G P A R J U X F R C
K G S T S C Q K L Z F Z F P I Q K A L R X I W E I O S E S P W F
Q R O W K U G W E O P R Z A O Y U Q P I Y S J T V J M F K K R T
P E L H F G G S Z H T Z O C Q Z M U K P K O P E H R H S X Q J L
W D U Q Z R S D P D T U V X O H J I P J L D B M A M P U N P I X
U T J F L N H A P P L E N I S K J S L L H E N Q V Z J A K C Z G
B J O R A X D Z P C K G T O Q J C J T G F H R I O J U V Z U W O
O J O I V H S R W P T R B O C H O N E Y D E W S C R C Y G Y B Y
Z G R A J B A U X W Z V G I W O C S J Z K O K T A Y R R E H C C
N U N Y E U L F C Y A D F B U T C W I W S U I N D H S L C X L J
D L F A V C O K X V U T P P M Y I E L S A L Q U O E R O B G J J
U K O A M X A G W S N E E E F W W E P E A R W P Y T R N Q C X N
G O G M B L B O T P S I B R C G M W M K C I C B D H Q I Y G C L
J K L Z J L P H O F K G L P M O C P I T X Z W H T G S M H K P D
S U L B K Q Q P C M D Z M M N E R X A H T Y Y W E A B R S Y G J
Z W H I Y Y Y O Q W B K I N S T L J E E E T Q L R X D M E V M H
V N B G T W Y K V G U J Z X T K X O N D R H I E A I W I I A G Z
V Q K U Q L J O A Y I P J D X A M O N Z R F J J I K P G H M H A


APPLE
BANANA
COCONUT
GUAVA
LEMON
ORANGE
PINEAPPLE
APRICOT
BLACKBERRY
DURIAN
HONEYDEW
LIME
PAPAYA
WATERMELON
AVOCADO
CHERRY
GRAPES
KIWI
MANGO
PEAR
```

```
D:\KULIAH\SEMESTER 4\Strategi Algoritma\Tugas\Tugas Kecil\Tucil 1\Code\Tucil-1-Stima\src>.\Main
Masukkan nama file (spesifik dengan tempatnya): ../test/large/Buah.txt
Masukan banyak baris soal: 32
E T O W U V H F M C Z G S O E E L B T J G B E A E M I L I F G G
G L V T T E P D H W N Z L C Z G Z G D U L K Y T B Z E K J F U T
N Z B D X M W K J M Q K M W Q K R W L A H Z R T E F J W M N A G
A G G U V B C I S X M L Z C Z A P J C T V H E R H X D G P V V M
R O E G R K N W A M M Y E J P E S K N P L I Z T Y E Z N U N A T
O Z E V N P J I N M M U A E Z Z B U D M J U I W P V Y V I W W E
B I W I P H Y P C G S T S Y R E K A J Y Q A C T J L K Y F S F V
B A C E T B I Q D S X O X R R Q Y W I A A Y Z Q M U M R B A N O
A W N K I O Z H M X M C C R F A X Q S F N W J A Z O I O O V P U
X J K A N X M A N T Z I Y H P J B K G D Z R O B Q X E T U A N A
H D J B N G L K O O Y R I A R F H V I N R O I I Z Z F E V R J S
C G W Z L A J T J R H P P P J G X J B Z W Y R J A H E W T G I K
Q Q C J K E Q V F M S A K Y I U C S S H D P J A M V L J W G K R
X F T O J D C Y V D V B Y Z Z N V A N F S J B U J N O I E Z V F
W D G U B Y F S Y L H A P Z M R E A A J I E G P A R J U X F R C
K G S T S C Q K L Z F Z F P I Q K A L R X I W E I O S E S P W F
Q R O W K U G W E O P R Z A O Y U Q P I Y S J T V J M F K K R T
P E L H F G G S Z H T Z O C Q Z M U K P K O P E H R H S X Q J L
W D U Q Z R S D P D T U V X O H J I P J L D B M A M P U N P I X
U T J F L N H A P P L E N I S K J S L L H E N Q V Z J A K C Z G
B J O R A X D Z P C K G T O Q J C J T G F H R I O J U V Z U W O
O J O I V H S R W P T R B O C H O N E Y D E W S C R C Y G Y B Y
Z G R A J B A U X W Z V G I W O C S J Z K O K T A Y R R E H C C
N U N Y E U L F C Y A D F B U T C W I W S U I N D H S L C X L J
D L F A V C O K X V U T P P M Y I E L S A L Q U O E R O B G J J
U K O A M X A G W S N E E E F W W E P E A R W P Y T R N Q C X N
G O G M B L B O T P S I B R C G M W M K C I C B D H Q I Y G C L
J K L Z J L P H O F K G L P M O C P I T X Z W H T G S M H K P D
S U L B K Q Q P C M D Z M M N E R X A H T Y Y W E A B R S Y G J
Z W H I Y Y Y O Q W B K I N S T L J E E E T Q L R X D M E V M H
V N B G T W Y K V G U J Z X T K X O N D R H I E A I W I I A G Z
V Q K U Q L J O A Y I P J D X A M O N Z R F J J I K P G H M H A
waktu yang dibutuhkan: 96056 microseconds
jumlah huruf yang dibandingkan: 9369
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1  F D E R E F F U S Y T O M F S L L U N C H T I M E U P B E A A U S Z
2  A T W I J N J H Z E B D N Z E V U K L O R Q Q C X Y O Y V H K U W X
3  I O D G S O M B E R J S H H Z L P R J P W P A Z P Y O L L R B P F L
4  Q H Q K P F I A C L M T G I I K O G K Y J R I J R R U M M O V R Y O
5  F E W H P I E U N V B C P B S O I H N I P W I V O S H I P G H O K L
6  A X F E A S M L F I X E E P E G P J O I N C H Y Z O H T K N Z H V L
7  F N D T S O B I D K S O E M H J K Z Z C N G W M P U I I B I W S F I
8  V T T J S M Q W C N Q K L K T D J O G V L N C T M M T G N L E K O P
9  X D X P E E M C X R A W E E O X Q U L H N A A A A K E A T U D V T O
10 P P U E N T I T G S O H R Q P E E Q D Z X S N L M U V T Z C E E W P
11 J E Y U G R I N R A W S N N Y M W J F C Y E J N P R V E T I U E T Z
12 D E R Q E Y I N D V P X C T H V P Y V Q L N E A O W U I H D O V W L
13 H A H K R K F S B J V S I O R A V R O Y B W N L U I E M R I Q V X Q
14 H A X F R Q L S A L I N C A P Z Y Y R Y D T P U B F S X A R W Y V S
15 N R L A L P L R N O U F T R Q E C Y L W E S U X R A T I P I E E P Z
16 V X B N C M O Y S T J T E V E A L T R S T I N W N J D H V T L M P C
17 F M H Z C H E M R T E Q N C P T S R D H I P T I Z Z T N U E T I I S
18 E I V W R M E O O S Y L B S E E S P J U V R I P V Z S B E Z L F N X
19 V L R I T N P M T F A S I J N I S A A M N A N A A X I Q H P B E J G
20 A A O Q E P R I I E E Z C R M L B N O U I H G P M R N A A I X S T R
21 J N U G O W N E C S E I A R B F N W H B N S T S T J D K U T B E H W
22 I O T B D G I Q T D E E G N A I E F J O U E J S S F S D I O V A F U
23 I M C T S O V N T I Q V G N K P O B I E V U I D E P E N D E N C E D
24 E R A T B D S H G Q R D G C E U B P E Z Z D U W U I T J P T Y N W V
25 B O S Q U D E O Z D O E O Y H D V O B X E I B K Q Q F S R R B I F R
26 Y H T A H D Z G Y I E Q M A P F E P O R O K N R O R U G M W A L U W
27 S H F C H X U G A B C E R E I R C K S K L Z P G E I R S V H D D O R
28 P I Z Y W P L E Z G E Z T B N D U C X Y O T T X O V E B C X C U X S
29 S N F K W N T W T E N A Y Y R T T U M E B B U F M C Y R F N Q A S T
30 T P B G L L F K P N K E N P X V S L Z B K X S W D Z E I D V V M I B
31 N V K T P M N X T F H G N G I O U P G F E K W B T O Q R C U F Z O R
32 B L N C E Q O H W E I O Y U L G C O N T R O L D E T S I S E D R E Q
33
34
35 ALCOHOL
36 ATTESTING      You, 21 hours ago • tinggal warnain doang
37 AVOIDS
38 BOASTER
39 CAPSIZED
40 CARP
41 CHEMISE
42 CONTROL
43 DEPENDENCE
44 DESISTED
45 DUET
46 EARNESTLY
47 EMBARKING
48 EXPENDABLE
49 FEIGNED
50 HANDLE
51 HARPIST
52 HORMONAL
53 HUMANELY
54 HYPOTHESIZE
55 ISOMETRY
56 LOLLIPOP
57 LUNCHTIME
58 LURKING
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I O D G S O M B E R J S H H Z L P R J P W P A Z P Y O L L R B P F L
Q H Q K P F I A C L M T G I I K O G K Y J R I J R R U M M O V R Y O
F E W H P I E U N V B C P B S O I H N I P W I V O S H I P G H O K L
A X F E A S M L F I X E E P E G P J O I N C H Y Z O H T K N Z H V L
F N D T S O B I D K S O E M H J K Z Z C N G W M P U I I B I W S F I
V T T J S M Q W C N Q K L K T D J O G V L N C T M M T G N L E K O P
X D X P E E M C X R A W E E O X Q U L H N A A A A K E A T U D V T O
P P U E N T I T G S O H R Q P E E Q D Z X S N L M U V T Z C E E W P
J E Y U G R I N R A W S N N Y M W J F C Y E J N P R V E T I U E T Z
D E R Q E Y I N D V P X C T H V P Y V Q L N E A O W U I H D O V W L
H A H K R K F S B J V S I O R A V R O Y B W N L U I E M R I Q V X Q
H A X F R Q L S A L I N C A P Z Y Y R Y D T P U B F S X A R W Y V S
N R L A L P L R N O U F T R Q E C Y L W E S U X R A T I P I E E P Z
V X B N C M O Y S T J T E V E A L T R S T I N W N J D H V T L M P C
F M H Z C H E M R T E Q N C P T S R D H I P T I Z Z T N U E T I I S
E I V W R M E O O S Y L B S E E S P J U V R I P V Z S B E Z L F N X
V L R I T N P M T F A S I J N I S A A M N A N A A X I Q H P B E J G
A A O Q E P R I I E E Z C R M L B N O U I H G P M R N A A I X S T R
J N U G O W N E C S E I A R B F N W H B N S T S T J D K U T B E H W
I O T B D G I Q T D E E G N A I E F J O U E J S S F S D I O V A F U
I M C T S O V N T I Q V G N K P O B I E V U I D E P E N D E N C E D
E R A T B D S H G Q R D G C E U B P E Z Z D U W U I T J P T Y N W V
B O S Q U D E O Z D O E O Y H D V O B X E I B K Q Q F S R R B I F R
Y H T A H D Z G Y I E Q M A P F E P O R O K N R O R U G M W A L U W
S H F C H X U G A B C E R E I R C K S K L Z P G E I R S V H D D O R
P I Z Y W P L E Z G E Z T B N D U C X Y O T T X O V E B C X C U X S
S N F K W N T W T E N A Y Y R T T U M E B B U F M C Y R F N Q A S T
T P B G L L F K P N K E N P X V S L Z B K X S W D Z E I D V V M I B
N V K T P M N X T F H G N G I O U P G F E K W B T O Q R C U F Z O R
B L N C E Q O H W E I O Y U L G C O N T R O L D E T S I S E D R E Q
waktu yang dibutuhkan: 110026 microseconds
jumlah huruf yang dibandingkan: 12675
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U X G D N E Q R S Y O S Y Y G J O M P G L F G H W H E W N F E F
K S H C W J P R M M Y U W X W L Z H Z K F Z E D N P K O D T T W
L M Q V V V O M W O A S D J L N N L O L T H T N S U M B O W V S
I K B M I R D T P N N Q R E U H A I O U U B E A O G Z R L K G N
R N M O T D R M I Q Z I C Z C D J W O N D R D C U J I B I L R U
H H L T N I E Y Q J Z V C I X C Z C A G B L K H N V A L N U M M
X I D K A H A X Q W Z M Z A H O K Z X T U G F S J J L C P B W D
N W R N E X X S E M N K O Z I X X Y U R B J T S L A E W V Q W D
G U G S H L F U Q U B B N T W G G Z T Z Q Y A Q D T D D Z Z G Z
N L I D O R W C J D V S P E Y O L J M W F U V N U R W S S G V U
E J U N N V C S X J R H T P S X D D U M A G M L L V U I M H W M
S M A Y Z G V B M K I W L M T H B J J D B D F Z X C C M L S O U
P I G K R D W C A L G H Q U N J V Y J T M V Q S U V N F I Q A Z
P F R S Q R J U S A G N K R S D A W E Y X Z W O J E O W H S P H
S X A Q Y E T Z E R P F J T B J I M T L X F B A I F Z T H L R Y
E F T M Y L N P N G Y S I E J X T L L I E D S K D F D L A L A X
Y A I S B E G B U J A V B W Z J X Q V X G L G E I P N C W E H N
Y N U L C F G K A J M L M G B H S J Q X Z F U N B Y Z F M U B N
F B G T G L W O J I B W F E I J K Z P P M J P K S H X E N E N G
C L A R I N E T Z X P X E I J U T A R L B A S S U A C C O R D I
Q Q W U U C D T J B X S V V X B T I R E N H W V Q S L W H I Y V
R E B N D D D K L C U T L C Q Y N Z G G S G C P E L Z H J J N V
M K E S L P Y C M R S C V L D H C N E N O H P O X A S D G U R R
P R V S R T Z N S L J C E C A M J Y V V S I A L N G I H O W D Q
B M D V C R N K W V O E U I B Z S X V F B E Y D A H L L G X V O
O N M L S S W W H S H S G T I C C D N D G F J N O U P D C F R W
C A P Z S F H C D F G V J U D W B I T O C Z Q S E L W H P O M S
U J J N V E P A B D A O Q D A S I H N E O X A I D A K Q Z B X Q
H L A P V J R K G S R M R G W T A Y K S Z Q K T F S U K M N N K
F C B I I E G F P B Y R O Q W T G C S M I J Q H U P N M R V L R


BASS       You, 21 hours ago • tinggal warnain doang
CELLO
FLUTE
HARP
SAXOPHONE
UKULELE
ANGKLUNG
BASSOON
CLARINET
GUITAR
MANDOLIN
TRIANGLE
VIOLIN
BANJO
CAJON
DRUM
HARMONICA
PIANO
TRUMPET
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D:\KULIAH\SEMESTER 4\Strategi Algoritma\Tugas\Tugas Kecil\Tucil 1\Code\Tucil-1-Stima\src>.\Main
Masukkan nama file (spesifik dengan tempatnya): ../test/large/Music.txt
Masukan banyak baris soal: 32
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Q G O A W I A P D J M D S A Q R L E A N I Y Q U S X X D A X C Y
U X G D N E Q R S Y O S Y Y G J O M P G L F G H W H E W N F E F
K S H C W J P R M M Y U W X W L Z H Z K F Z E D N P K O D T T W
L M Q V V V O M W O A S D J L N N L O L T H T N S U M B O W V S
I K B M I R D T P N N Q R E U H A I O U U B E A O G Z R L K G N
R N M O T D R M I Q Z I C Z C D J W O N D R D C U J I B I L R U
H H L T N I E Y Q J Z V C I X C Z C A G B L K H N V A L N U M M
X I D K A H A X Q W Z M Z A H O K Z X T U G F S J J L C P B W D
N W R N E X X S E M N K O Z I X X Y U R B J T S L A E W V Q W D
G U G S H L F U Q U B B N T W G G Z T Z Q Y A Q D T D D Z Z G Z
N L I D O R W C J D V S P E Y O L J M W F U V N U R W S S G V U
E J U N N V C S X J R H T P S X D D U M A G M L L V U I M H W M
S M A Y Z G V B M K I W L M T H B J J D B D F Z X C C M L S O U
P I G K R D W C A L G H Q U N J V Y J T M V Q S U V N F I Q A Z
P F R S Q R J U S A G N K R S D A W E Y X Z W O J E O W H S P H
S X A Q Y E T Z E R P F J T B J I M T L X F B A I F Z T H L R Y
E F T M Y L N P N G Y S I E J X T L L I E D S K D F D L A L A X
Y A I S B E G B U J A V B W Z J X Q V X G L G E I P N C W E H N
Y N U L C F G K A J M L M G B H S J Q X Z F U N B Y Z F M U B N
F B G T G L W O J I B W F E I J K Z P P M J P K S H X E N E N G
C L A R I N E T Z X P X E I J U T A R L B A S S U A C C O R D I
Q Q W U U C D T J B X S V V X B T I R E N H W V Q S L W H I Y V
R E B N D D D K L C U T L C Q Y N Z G G S G C P E L Z H J J N V
M K E S L P Y C M R S C V L D H C N E N O H P O X A S D G U R R
P R V S R T Z N S L J C E C A M J Y V V S I A L N G I H O W D Q
B M D V C R N K W V O E U I B Z S X V F B E Y D A H L L G X V O
O N M L S S W W H S H S G T I C C D N D G F J N O U P D C F R W
C A P Z S F H C D F G V J U D W B I T O C Z Q S E L W H P O M S
U J J N V E P A B D A O Q D A S I H N E O X A I D A K Q Z B X Q
H L A P V J R K G S R M R G W T A Y K S Z Q K T F S U K M N N K
F C B I I E G F P B Y R O Q W T G C S M I J Q H U P N M R V L R
waktu yang dibutuhkan: 96716 microseconds
jumlah huruf yang dibandingkan: 6436
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## 4. ALAMAT DRIVE KODE PROGRAM

https://github.com/Hambinn/Tucil-1-Stima

## 5. CEKLIST

| Poin | Ya | Tidak |
|---|---|---|
| 1. Program berhasil dikompilasi tanpa kesalahan (no syntax error) | √ | |
| 2. Program berhasil running | √ | |
| 3. Program dapat membaca file masukan dan menuliskan luaran. | √ | |
| 4. Program berhasil menemukan semua kata di dalam puzzle. | √ | |