

WORD SEARCH PUZZLE

By : A01 D4 TI 2024



TEAM MEMBERS



Zahra Hilyatul J
231524031



Fitri Salwa
231524009

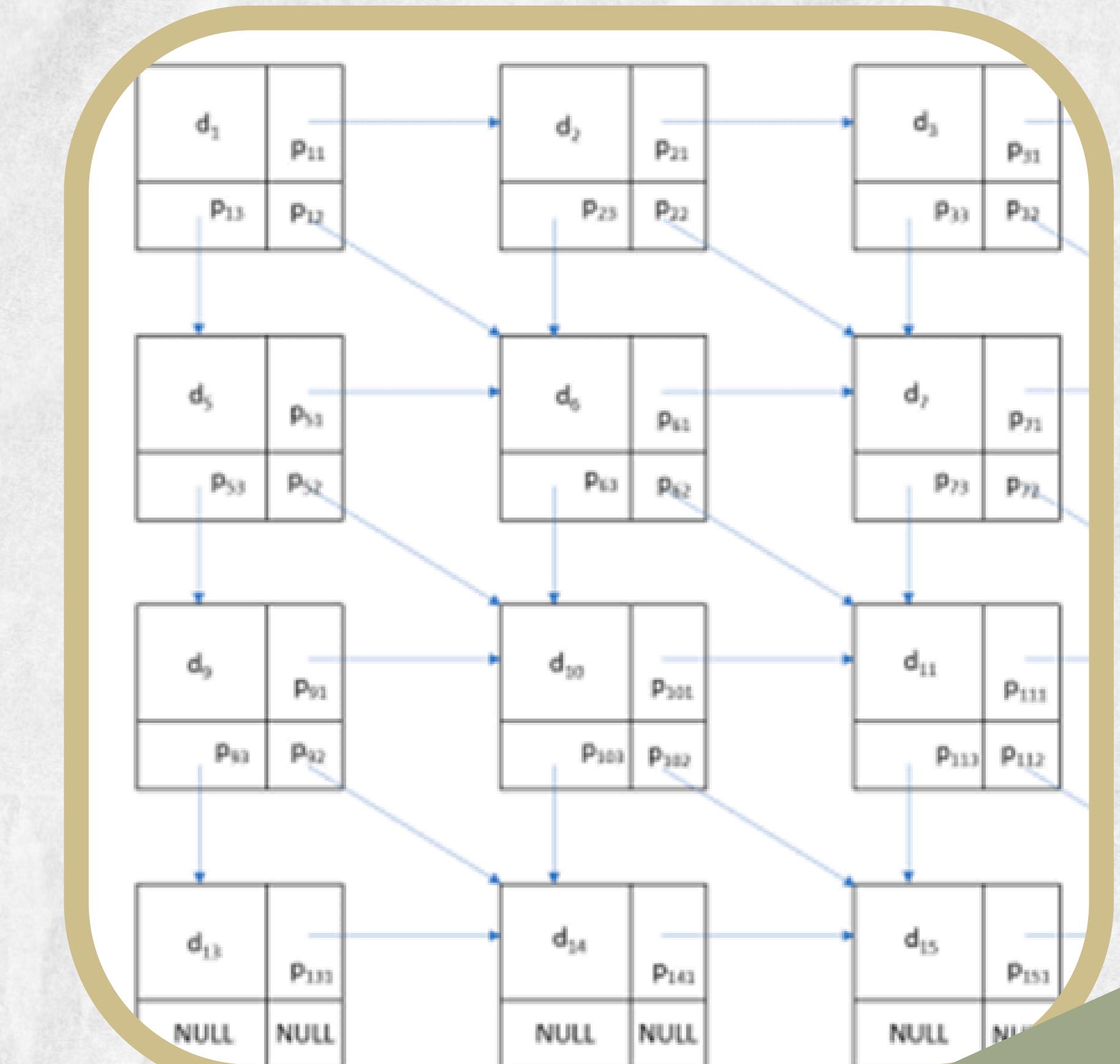


DAFTAR ISI



DESKRIPSI PROGRAM

Word Search Puzzle atau pencarian kata adalah permainan dimana sejumlah kata disembunyikan dan ditempatkan secara acak dalam sebuah grid huruf



Fitur Program



Bermain Game



Pilihan Bahasa



Mode Permainan



Pemilihan Tema Kata



Scoring



Leaderboard

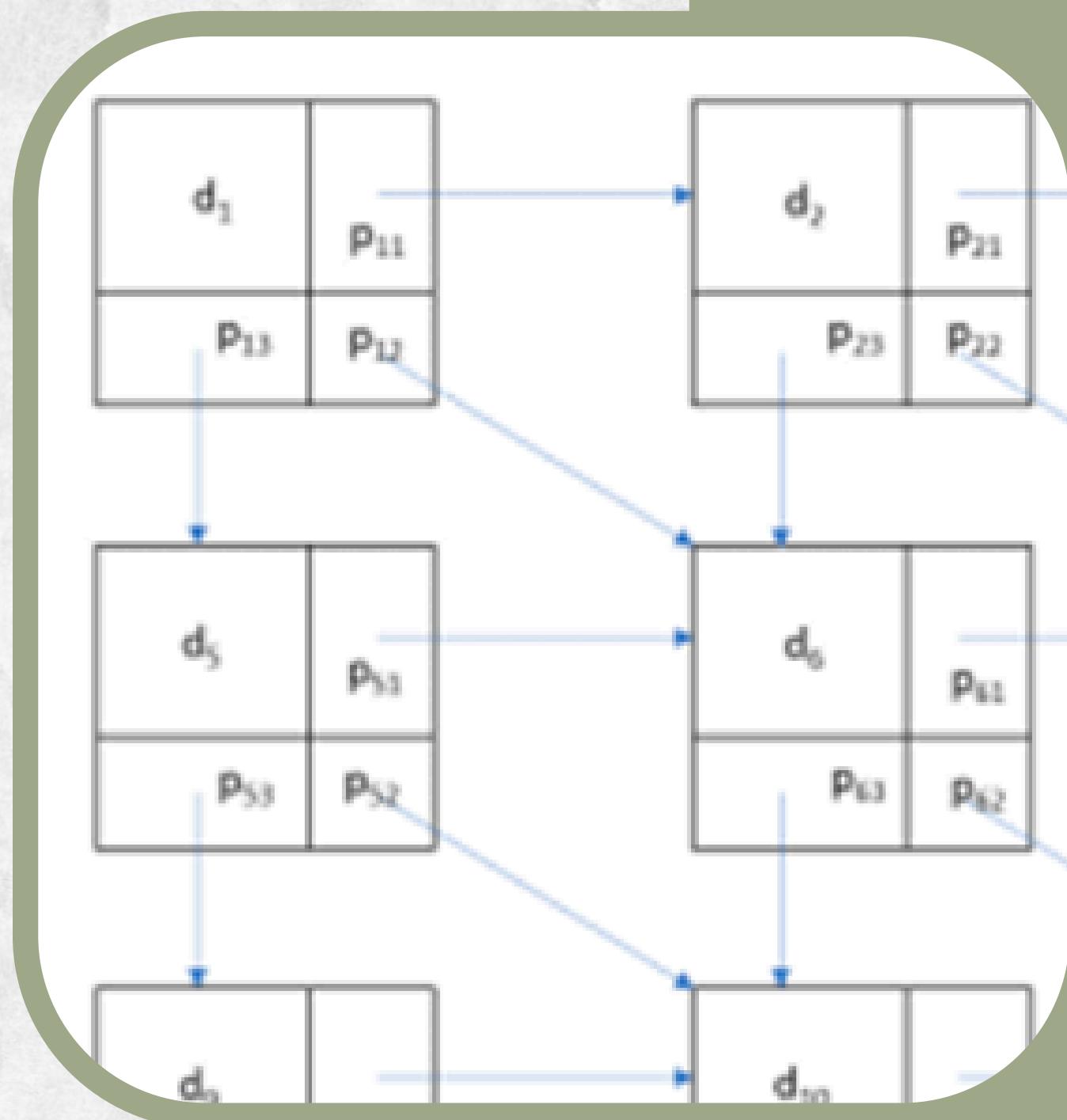


Aturan Bermain

Perancangan Struktur Data

Struktur data yang digunakan dalam implementasi ini adalah multi linked list. Multi linked list adalah variasi dari linked list di mana setiap node memiliki lebih dari satu pointer yang menunjuk node lain.

Visualisasi



Stuktur Data Multi Linked List

```
// Struktur untuk Node
typedef struct Node {
    char data;
    Node* right;
    Node* bottom;
    Node* cross;
} Node;
```

Struktur Data Player

```
// Struktur untuk pemain
typedef struct Player {
    char name[58];
    int correctWord;
    int score;
} Player;
```

Struktur Data Puzzle

```
// Struktur untuk puzzle
typedef struct puzzle {
    Node* head;
    int size;
} puzzle;
```

Modul Program

display.cpp

- gotoxy(int x, int y)
- getConsoleSize(int *width, int *height)
- printCentered(char *text, int y)
- speed(float seconds)
- loading()
- table()

node.cpp

- displayLanguage()
- displayPuzzle(puzzle * board, Player *player)
- header()
- inputPlayerName(char* playerName)
- BannerTheme()
- displayMainMenu()
- displayTheme()

- Node* allocation ()
- addNode(puzzle* board)
- setRightLinks(puzzle * board)
- setBottomLinks(puzzle* board)
- setDiagonalLinks(puzzle* board)
- makePuzzle (puzzle* board)

Modul Program

wordSearch.cpp

- playGame(Player *player, Player leaderboard[], int *leaderboardSize)
- checkHorizontal(Node* node, const char* word)
- checkVertical(Node* node, const char* word)
- checkDiagonal(Node* node, const char* word)

- findWord(puzzle* board, const char* word)
- checkSpaceHorizontal(Node* node, const char* word)
- checkSpaceVertical(Node* node, const char* word)
- checkSpaceDiagonal(Node* node, const char* word)
- fillEmptySpacesWithRandomLetters(puzzle* board)

- insertWordHorizontal(Node* node, const char* word)
- insertWordVertical(Node* node, const char* word)
- insertWordDiagonal(Node* node, const char* word)
- insertWordRandom(puzzle* board, const char* word)

Modul Program

leaderboard.cpp

- displayLeaderboard(Player leaderboard[], int leaderboardSize)
- searchAndUpdateScore(char words[] [50], int scores[], int wordCount, char* target)
- saveLeaderboard (Player leaderboard[], int leaderboardSize)
- loadLeaderboard (Player leaderboard[], int* leaderboardSize)
- addToLeaderboard(Player leaderboard[], int* leaderboardSize, char* name, int score)

rules.cpp

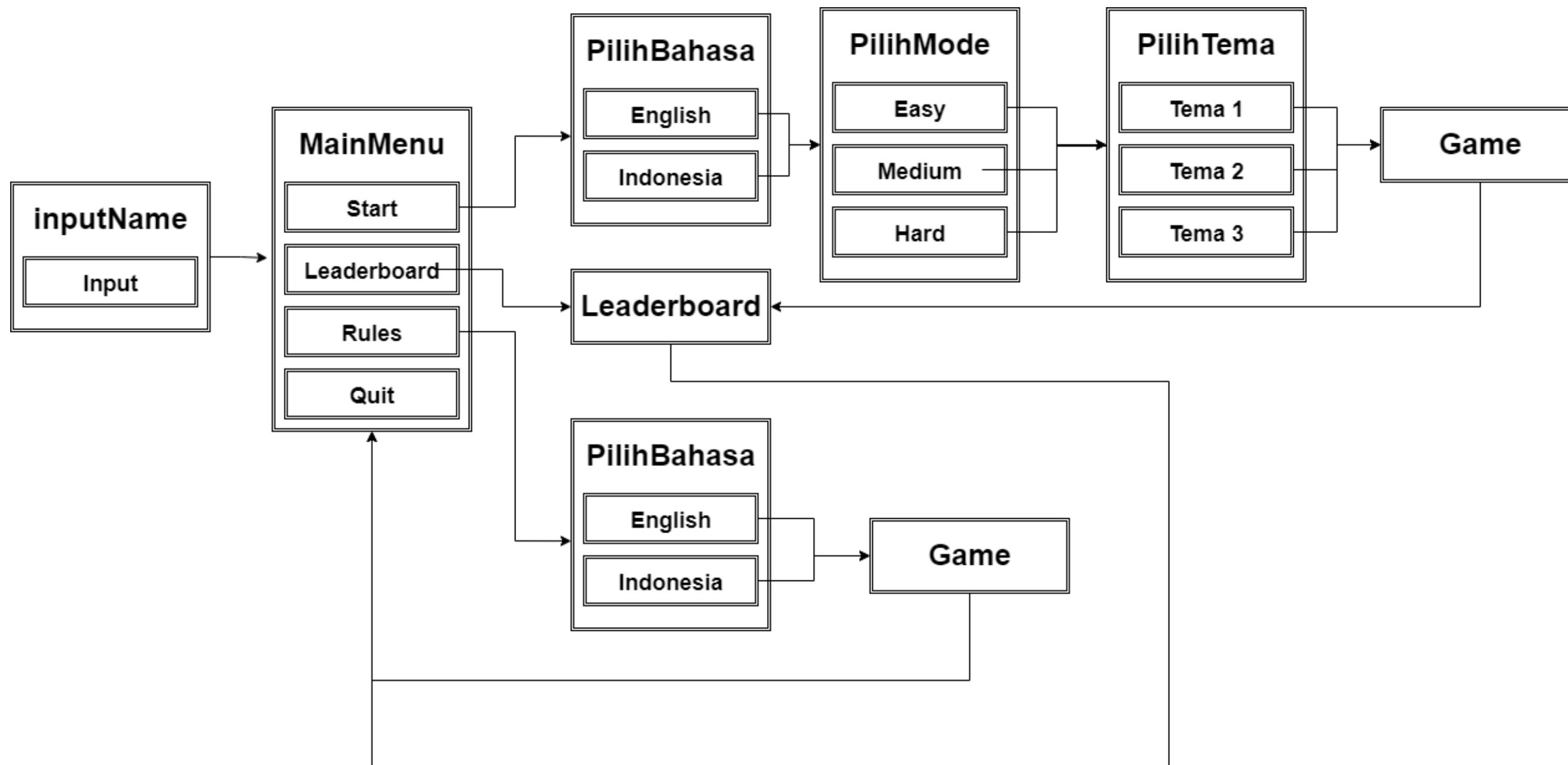
- BannerRules()
- Rules()
- displayRulesIndonesian()
- displayRulesEnglish()
- mainRules()

mainWSP.cpp

- main



SKENARIO GAME



H R Q M F L Y C A T C H E R T

KONDISI

Berakhir

- Semua Kata Telah Ditemukan sebanyak 5 kata
- Pemain Memilih untuk Mengakhiri Permainan dengan menekan huruf "Q"

R N K X W B C X F

Mendapatkan Score

- Menemukan Kata yang Benar
- Kata yang Ditemukan Dikonfirmasi Benar
- Jumlah Poin yang Diberikan sebanyak 100 point perkata

KONDISI MENANG

X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	B	U	N	G	A	X	X	X	X	X	X
X	K	X	X	X	X	X	X	X	X	X	X	X
X	A	X	X	H	X	X	X	X	X	X	X	X
X	T	X	A	X	U	X	X	X	X	X	X	X
X	A	X	P	X	X	K	X	X	X	X	X	X
X	K	X	E	X	X	X	U	X	X	X	X	X
X	X	X	L	X	X	X	X	M	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
D	U	R	I	A	N	X	X	X	X	X	X	X



Vertikal



Horizontal



Diagonal

DEMO PROGRAM

[https://drive.google.com/drive/u/0/folders/17FLb
6RlyGDRQhaBVhZpVOqGCX0yWluan](https://drive.google.com/drive/u/0/folders/17FLb6RlyGDRQhaBVhZpVOqGCX0yWluan)

THANK YOU

By : Ingoude Company

