INTRODUCTION

Crossword puzzle is the game specially developed for young kids, an interesting word game, and a good english vocabulary developer. It contains a table of words in which user has to identify and pick the words. The words are very much known and simple. If he/she picks all the words, the game ends. In short, it help us rememorize english words.

SOURCE CODE

void main();

Calls function first(); and mainmenu();

void first();

Prints out "DATA GAMES" and logo of the game

void mainmenu();

Main page of the game

Contains following options

1. START GAME
2. LEVELS
3. CREDITS
4. INSTRUCTIONS

void start();

Calls functions

 pname();

 loading();

games();

void games();

Goes to game1(); or game2(); wherever directed

void game1();

Level 1

void game2();

Level 2

void instr(void);

Provides instructions for playing the game

void level(void);

Asks user to choose a level

void loading(void);

Does the loading of game

void twobutton(void);

To quit without choosing level (Called from levels function)

void pname (void);

Ask user's name

void more();

Asks if user wants to play more levels

void timemess();

Displays the available time to play the game (start of the game)

void hint();

Displays Hint in level 2

float check_time_limit(clock_t);

Refreshes time every second. Checks if time is finished or not.

void credits();

Displays credits

ALGORITHM

1. Start
2. Timer starts
3. Repeat (1)until zero
4. File opens
5. If time is greater than 10 minutes Then end
6. Elseif All words are matched correctly Then End
7. Endif
8. Repeat (2) until zero
9. Input 'character'
10. If 'character' is equal to TAB(key) then hint will be printed……….. endif
11. Elseif 'character' is added to I'th index of string 'word'………… endif
12. Elseif character is equal to ENTER key then null character is added to the end of string 'word'
13. Repeat (2) ends
14. Word is read from file (a) ….a is the word present in file
15. Repeat (3) until zero
16. If 'word' matches with the word present in file i.e (a) Then Score increases
17. Else moves to the next word in file(a)… Endif
18. If none of the word is found from file(a) Then Repeat (3) ends
19. Checks time limit
20. Rewinds file
21. Repeat (1) ends
22. End

FLOWCHART

```
Start
  │
  ▼
Timer starts
  │
  ▼
While (1)
  │
  ▼
File (fp) opens
  │
  ▼
If var < 10 ──F──▶ Print "Time's up" ──▶ End
  │ T
  ▼
If chk2=8 ──T──▶ Print "congrats" ──▶ End
  │ F
  ▼
While (1)
  │
  ▼
Input ch
  │
  ▼
If ch == tab ──F──▶ If ch == enter ──F──▶ word[i] = ch
  │
  ▼
```

```
         A                          B                          C

         │T                         │  │                        │
         ▼                          ▼  ▼                        ▼
    ┌─────────┐              ┌──────────────┐            ┌──────────────┐
    │ A       │              │  Word[i]='\0'│            │   C          │
    │Print hint│             └──────────────┘            │ Print word"  │
    └─────────┘                     │                    └──────────────┘
                                    ▼                            │
                         ╱──────────────────╲                    ▼
                        │ Read word from file(a)For│       ┌──────────┐
                        │    the first time        │       │  i++     │
                         ╲──────────────────╱             └──────────┘
                                    │
                                    ▼
                             ┌──────────┐
                             │ Chk1=0   │
                             └──────────┘
                                    │
                                    ▼
                          ◇──────────────◇
                          │  While(1)     │
                          ◇──────────────◇
                                    │
                                    ▼
                    ◇──────────────────────◇        ┌──────────────┐
                    │   If  word == a       │──F──▶ │   Chk1 ++     │
                    ◇──────────────────────◇        └──────────────┘
                                    │                        │
                                    │T                       ▼
                           ┌──────────────┐       ◇──────────────────◇
                           │  Score+=100  │◀─T────│   If chk1>8        │
                           └──────────────┘        ◇──────────────────◇
                                    │                        │F
                                    ▼                        ▼
                           ┌──────────────┐       ╱──────────────────╲
                           │  Check time  │      │ Read word from file (a)│
                           └──────────────┘       ╲──────────────────╱
                                    │
                                    ▼
                           ┌──────────────┐
                           │ Rewind file  │
                           └──────────────┘
```
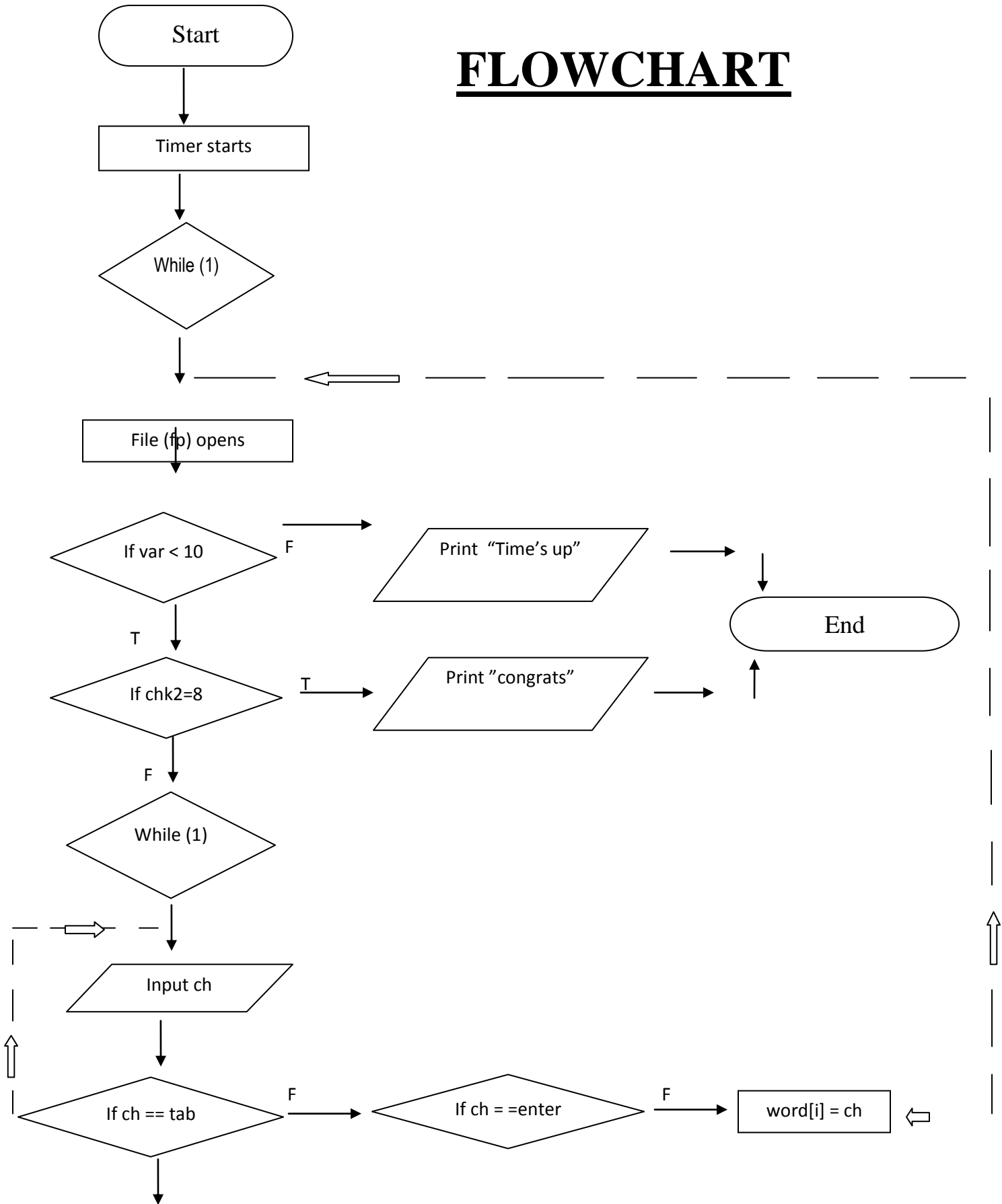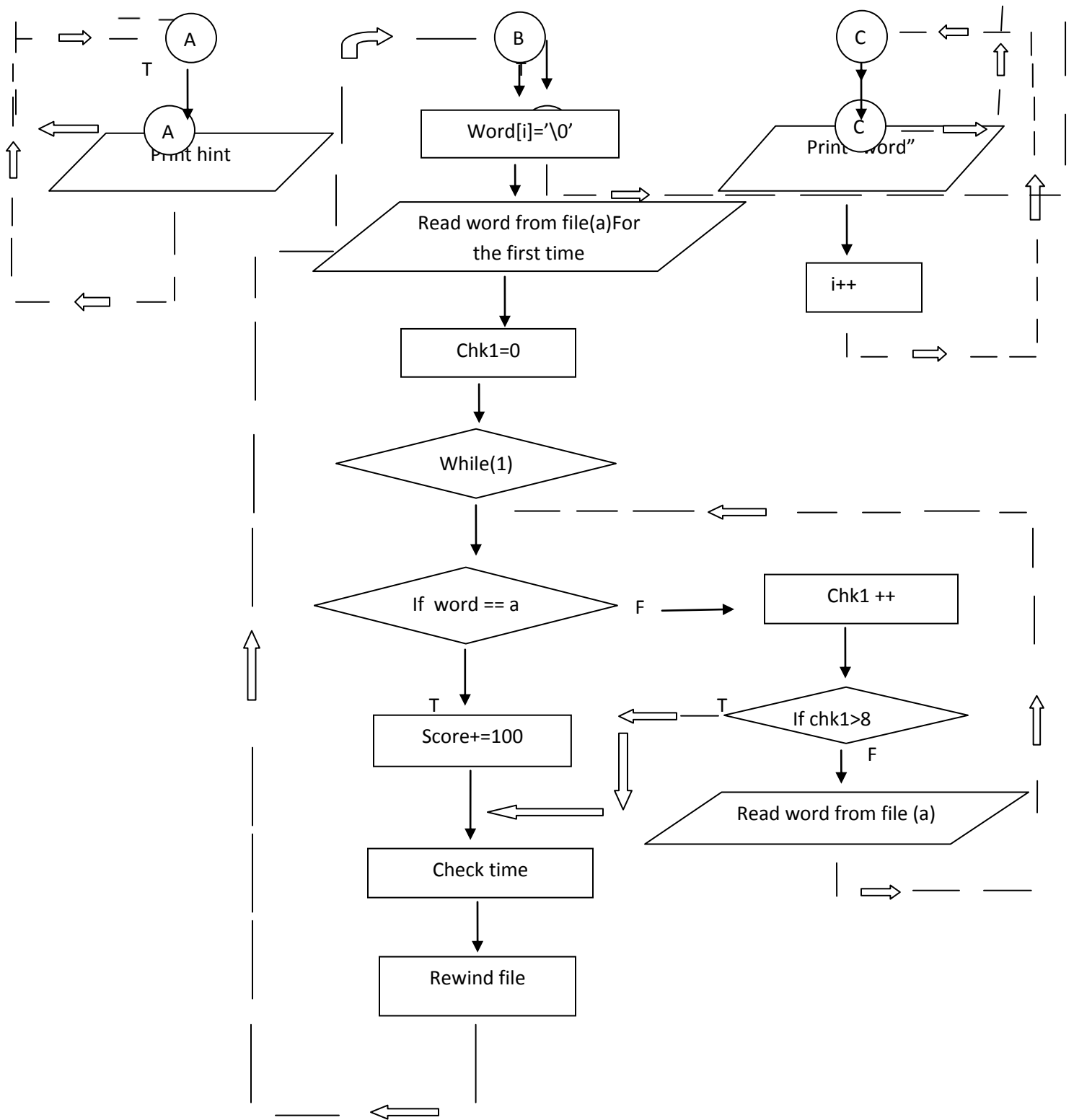
<u>LIMITATIONS</u>

1. Suppose you entered a word which is present in the puzzle and your score does not increase, don't harm, because the words in game are limited.
2. The user can enter as many words (incorrect) as he/she can.
3. The game consists of only two puzzles.
4. User has to complete the puzzle in time allotted.

FUTURE DEVELOPMENT

The Crossword Game that we have tried to make resembles the original game but hasn't got all features available in it. We shall try in future to add more interesting theme of knowledge for the young world. Increasing the levels and switching to new puzzles every time we play can add more flavor to it. So we shall create more puzzle and new vocabulary should be introduced.

BIBLIOGRAPHY

- ❖ Turbo C, Let Us C…
- ❖ http://www.codeproject.com
- ❖ http://www.happycodings.com