KEYBOARDING

Class : S.E. (CSE)

Batch : S3

Mini Project Group No.: 01

MINI PROJECT GROUP MEMBERS

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UNDER THE GUIDENCE

Ms. P. B. Sutar.

TECHNICAL INFORMATION…

- **Project Area :**

  Intelligent system and Searching, Path-finding Techniques.

- **Problem Statement :**

  How many keystrokes are necessary to type a text message ?

- **Objective :**

There are many virtual keyboards running on devices. On particulardevices they give four to five keys to operate this virtual keyboard. Since tofind the no. of key strokes we have chosen this problem.

TECHNICAL INFORMATION…

- **Abstract:**

  Developing a C++ program to calculate the minimal number of key strokes required to type a given word.

- **Related Ideas:**

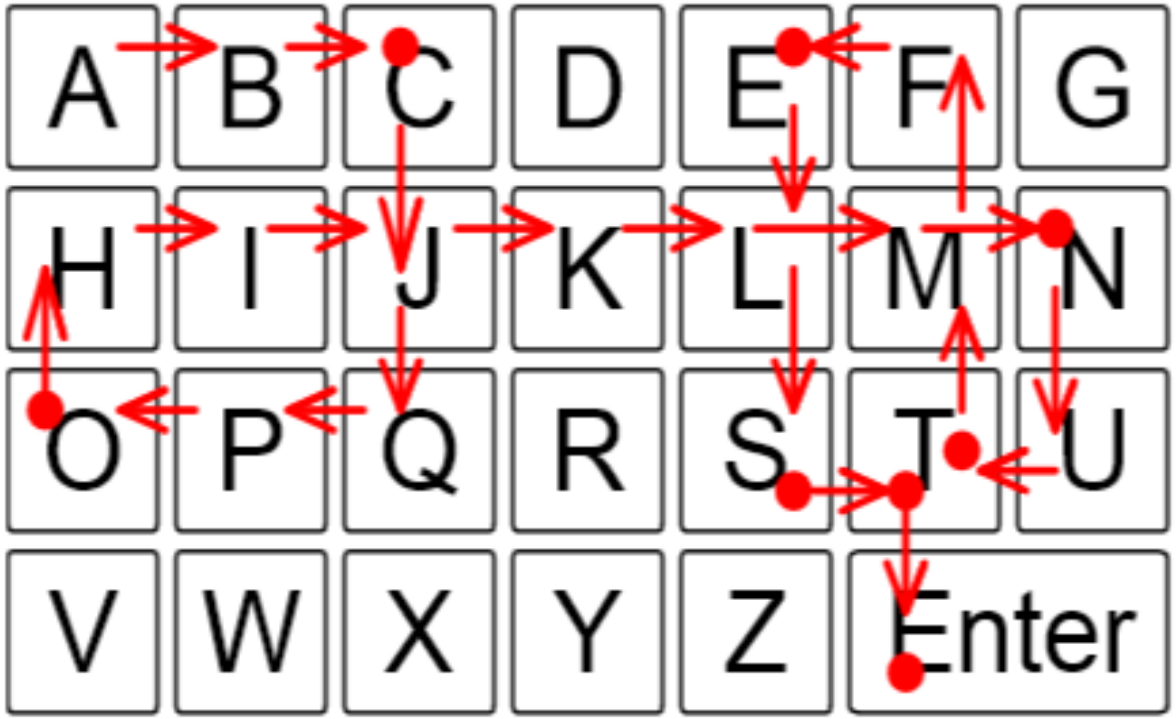
  BFS searching technique.

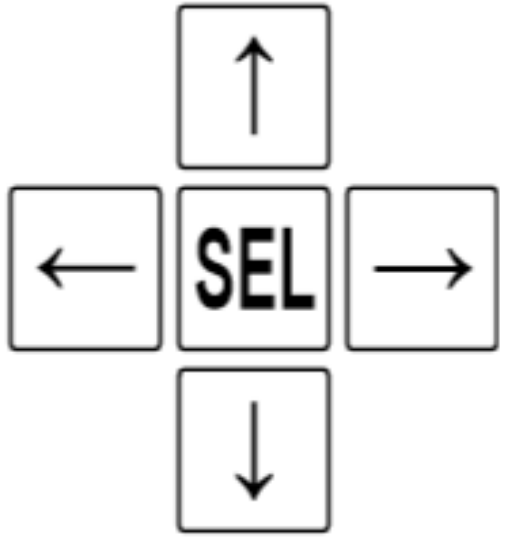
  Shortest path finding technique.

VIRTUAL KEYBOARD

- Technique to display keyboard on Screen
- **Operating** – Touch or Keys
- **Keys** – Individual Keyboard
  Arrow and Selection Key

KEYBOARD LAYOUT





In This Problem...

- **INPUT –**

  Virtual Keyboard – No. Of keys & Layout Provided by User

  Word which has to be type

- **IN SYSTEM –**

  Keys – Four Arrow keys & One Select Key

- **OUTPUT –**

  No of keystrokes to typing a user given word

CONSTRAINTS

- **User Can Give...**

  Any type of keyboard layout & word to be type.

  Keyboard Must Contains '*' as enter button.

- **User Can't Give...**

  Two Same Labled Keys in Keyboard.

  If it wants to give same labeled keys then there must be link is present i.e. these keys are must be insame row or same column or both.

INPUT MODULE

- Two integers r & c ($1 \leq r, c \leq 50$)
- Word - Non-empty string of at most 10000 of the available characters other than the asterisk.

PROCESS MODULE

- Find the first letter in the given word, in the keyboard.
- Move the pointer on the location of required letter.
- Press select button and count the strokes of pressed keys for an output.

OUTPUT MODULE

- Display the minimal number of strokes necessary to type the whole text, including the Enter key at the End.

4 7 ABCDEFG HIJKLMN OPQRSTU VWXYZ** CONTEST	30
6 4 AXYB BBBB KLMB OPQB DEFB GHI* AB	7

TECHNICAL REQUIREMENT

The minimum requirement for our project are

- **Hardware Requirements-**

  Computer - Processor- PIV with 1.90Ghz & above

  Keyboard, mouse ,monitor.

- **RAM –**

  256MB & above

- **HDD** –

  20GB & above

- **Operating System** –

  Ubuntu / DOS / Windows XP and above.

- **Software** –

  G++ compiler, Netbeans IDE etc.

CONCLUSION

- By developing this software we are calculating minimum no. of keystrokes for typing the given word.

REFERENCES

- Website –

  www.acmicpc.com
- Book –

  ‘Complete Reference C++’ by Herbert Schildt

THANK YOU...!