

GSOC Project Idea : Practice Handwriting

Identity

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Project title: Practice Handwriting

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Contact/Working info

Timezone: IST (UTC +5:30)

Typical working hours: Very flexible. I can adjust my work hours to anytime between 15:00–22:30 UTC (20:30–04:00 IST) and can work on the weekends for 5 hours extra.

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I live in Ahmedabad, a metropolitan city with 24/7 power supply and a good enough and uninterrupted Internet Connection. So working online will not be hampered by any means.

Introduction

- As we all know famous quote “Practice makes man perfect”, I would like to say that practice from childhood makes children powerful, progressive and sensitive.
- This mobile application is helpful to children who are learning how to write, by allowing them to practice their handwriting skills.
- The application would present letters & words, and allow the kids to trace them.
- Voice/ Speech warnings with vibration would be given instantaneously when the trace is wrong.
- The kids would be able to restart the trace once they receive the warnings.
- The app not only speak out warnings but also can **pronounce** correctly the letter or the word which will help the kid associating the letter/word with its **correct pronunciation**.
- Once kids trace the letter successfully they get **rewards** in points, as well as they unlock next Character/ Number/ Shapes.
- From this kind they have number of levels.
- Kids also have functionality in the app like choose **different color** for writing, Tutorial **video** for particular character(something like flash video), **score board**, Search functionality, **reload** facility, **get star**(another reward) based on kids **performance** and time taken to execute successfully.

- This kind of functionality will include in our application.

Present Scenario

- Our main focus is Trace engine.
- Currently I have high level prototype ready.
- Now we need to develop actual prototype then application.

Mentors

Aditi Sharma is my primary mentor and **Pankaj Nathani** is my co-mentor. Both of them have helped a lot in making the basic idea clear to me.

Deliverables

Required Deliverables

- Develop SQLITE database as per requirement.
- Develop Basic Interface with trace engine.
 - In basic interface first develop home interface which link with all other interface.
 - Develop trace concept.
 - Develop video tutorial concept.
 - Develop paint choose color functionality.
 - Develop all other interface which are remaining.
- Integrate all module and Develop interactive UI.
 - Now integrate all the module.
 - Now develop remaining functionality and develop UI interactive.
- Test the application.
 - Test with different resolution and sizes.
 - Make responsive for all gadgets.

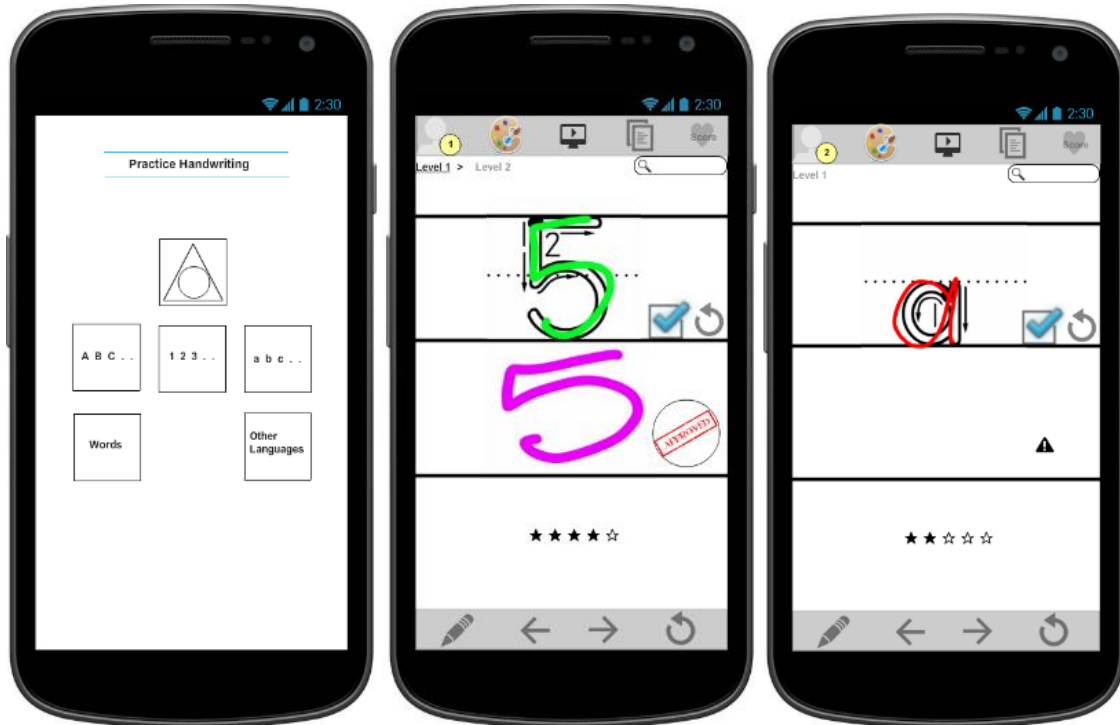
If time permits

- Expand the idea in another language.
- Expand the idea to pronounce the alphabet, number, word.
- Capture photo is user want to store that screen.

Simple workflow

- The workflow basically consists of 4 steps:
 1. Develop SQLITE database.
 2. Develop Basic interface.
 1. Develop home interface which link to all other interface like ‘upper letter’, ‘lower letter’, ‘words’.

2. Develop trace concept from base.
 - i. User can trace the given character, number, words and compare with database.
 - ii. If yes then forward to the next, increment score board, get rewards.
 - iii. If fail then show error message and vibrate.
 3. Develop video tutorial concept.
 - i. If user presses this, one short video plays regarding current alphabet help.
 4. Develop Paint choose color functionality.
 - i. User can select different different color as they like.
 5. Develop remaining interface.
 - i. Develop Upper letter interface.
 - ii. Develop Lower letter interface.
 - iii. Develop Words interface.
3. Integrate all the module and then testing and finishing will take turn.
1. We need to check app in all the phone/tablets for resolution perspective.
- The workflow that I described is illustrated through a UI mockup.



Project Schedule Timeline

- **Before April 21st** - Familiarizing myself with the trace engine.

- **April 21st to May 19th** - Research thoroughly on my implementation idea, get up close with Trace Engine and to gather all possible resources for the coding period and creating a Practice handwriting application.
- **May 19th to May 25th (Week 1)** - Work on Backend and develop home interface.
- **May 26th to June 1st (Week 2)** - Implementing all other interfaces.
- **June 2nd to June 15th (Week 3,4)** - Implementing trace functionality this is a bit tricky and will be time consuming.
- **June 16th to June 22nd (Week 5)** - Test app with trace engine.
*So Before the **Mid-Term Evaluation** I will have a basic interface application with trace engine.*
- **June 23rd to June 29th (Week 6)** - Implementing video tutorial for kids.
- **June 30th to July 6th (Week 7)** – Implementing paint functionality.
- **July 7th to July 13th (Week 8)** – Work on backend with this both video and paint functionality.
- **July 14th to July 20th (Week 9)** - Customizing the style of the UI implementation, classes for various skins available i.e. all kind of screen etc.
- **July 21st to August 3rd (Week 10,11)** - Testing time, fix bugs, improve the documentation and the UI, and scrub the code otherwise.
- **August 4th to August 17th (Week 12,13)** - Pre-Deployment Code Review and Buffer period in case I fail to make it up to the schedule and also improve the documentation. I will submit each significant feature to BuildmLearn for code review when it is completed.

Mobile/Tablet Compatibility

- This app will work in all kind Mobile and Tablets.

Benefits

- This mobile application is helpful to children who are learning how to write, by allowing them to practice their handwriting skills.
- As studies indicate, kids are more likely to spend more time practicing this on smartphone / tablets when compared to pen and paper.
- Child become creative.

Participation

- The mantra that I follow is simple "The more you ask, the more you learn".
- I do have frequent conversations with my mentor via email. While I'm using my laptop, I am always logged on to GoogleGroups and can be easily reached at BuildmLearn, or by private message. I am also planning to blog about my experiences with BuildmLearn especially this project, probably weekly.

- Synchronous feedback via Skype and hangout.
- The important thing in an interaction via email that I have realized is to have **patience**. During the times when I am waiting for a reply from my mentor or the community, I generally tend to sit back and analyze the problem or start working on a different task till I get the reply needed.

My Previous Open Source Experiences

- BuildmLearn is the first organization in the world of Open Source Programming wherein I have participated actively.
- I have established SAMBA File Server in Cent OS.
- I have established Zimbra Mail Server in Cent OS as well as UBUNTU.
- I have establish SVN in Cent OS as well as UBUNTU.
- Currently working with Firewall.

Are you comfortable working independently under a supervisor or mentor who is just available virtually?

- Yes

Are you submitting proposals for any other organizations except us?

- No

Have you participated in any previous GSOC programs?

- No

What is your primary motivation to submit a proposal for this project? Are you interested because you get a stipend as a part of GSoC or would you be interested to develop this project for us even outside GSoC?

- Like every parents have no time , when looking at children I was surprised and get disappointed that children not have first teacher and first teacher have no time . That is the motivation behind my project proposal.
- I would love to work but i will love to get selected for GSOC.

About You

- I am a 4th year Information Technology student at [U.V Patel College Of Engineering](#). I love kabaddi and like to travel a lot.
- **“Never give up on what you really want to do. The person with big dreams is more powerful than the one with all the facts.”**

- I program in my free time and have a fairly good understanding of C, PHP, HTML, CSS, Android and can paddle around with Java and Python.
- Like every parents have not time , when looking children I was surprised and get disappointed *that* children not have first teacher and first teacher have not time . That is the simple motivation behind my project proposal. Few months ago I never thought I'll be writing this proposal, but now I have the confidence to do it.

Acknowledgments

Firstly I would like to thank **Pankaj Nathani** and **Aditi Sharma** for their constant monitoring. The UI mockup that I have prepared is a result of several suggestions that I received on the **Google Group** and also to the valuable inputs given by my friends and college professors who are regular users. **Bunch of Thanks** to whole **BuildmLearn Team**.