



Currency Identification Mobile Application for the Visually Impaired

CSP 315

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PROBLEM

- Identifying currency notes is a big challenge for blind people.
- Unlike a coin, the denomination of which can be easily recognized by its shape and size.
- Differentiating between pair of notes which are of a nearby denomination value (Rs.10 and Rs.20 for example) is an even harder task.



ABSTRACT

- There are about ten thousand mobile phone users in India who are visually impaired.
- We target a mobile phone application which by using mobile camera will be able to identify denomination of the currency.
- The application interface would be speech as well as vibration based.



EXISTING APPLICATIONS

- Currency Recognition applications are available in market for Dollars and Euros, but not for Rupee.
- Many efficient OCR based applications exist. e.g Bar code reader

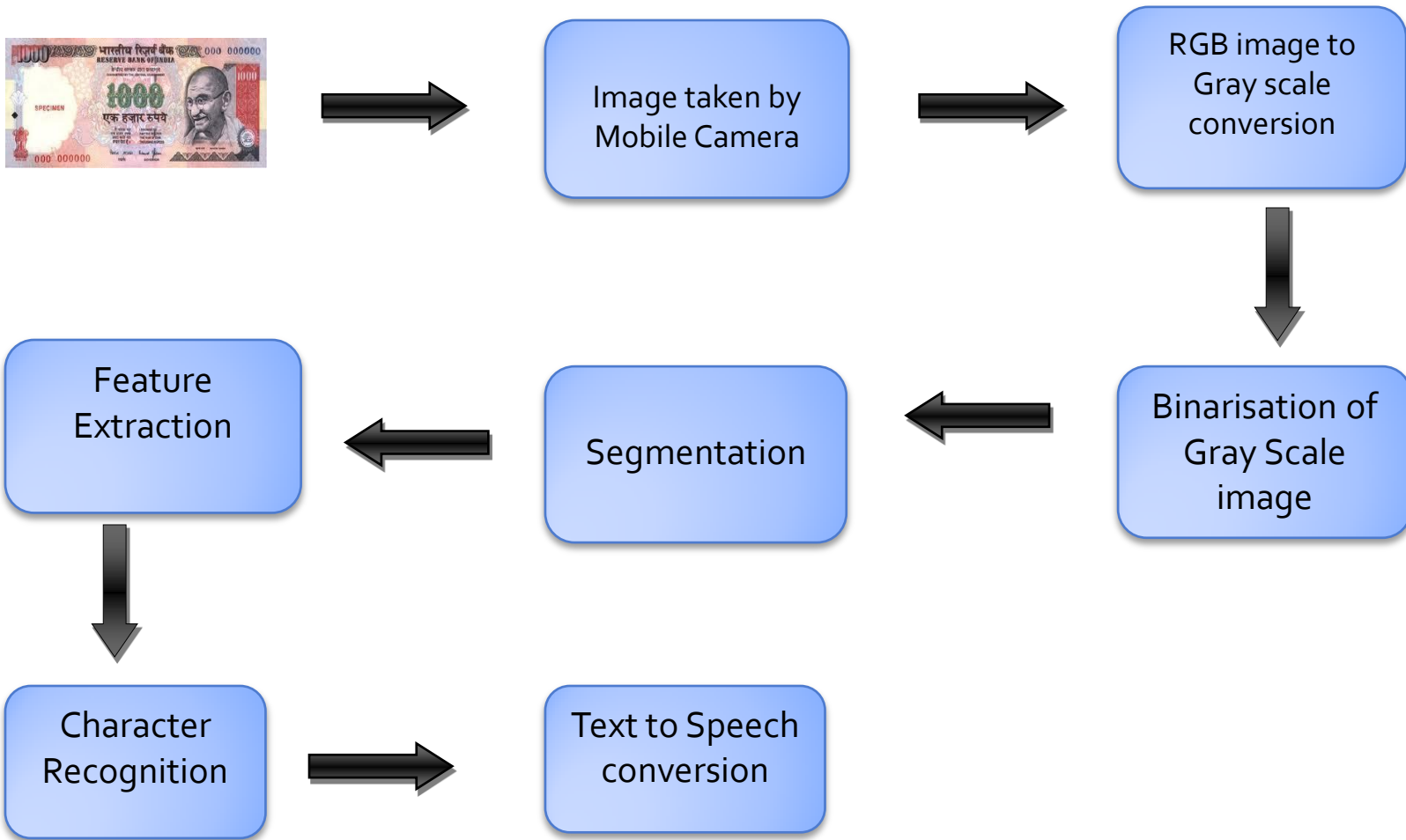


METHODOLOGY

- The application will be able to inform the users about the denomination using Optical Character Recognition(OCR).



BLOCK DIAGRAM



SPECIFICATIONS

- Platform :
 - J2ME (Java Micro Edition)
MIDP 2.0 and CLDC 1.1
- Supported Mobile Operating Systems :
 - Symbian S40
 - Symbian S60 all editions
 - Sony Ericsson OS
- All other Mobile OS which support jar applications such as Android, Blackberry, Windows etc.

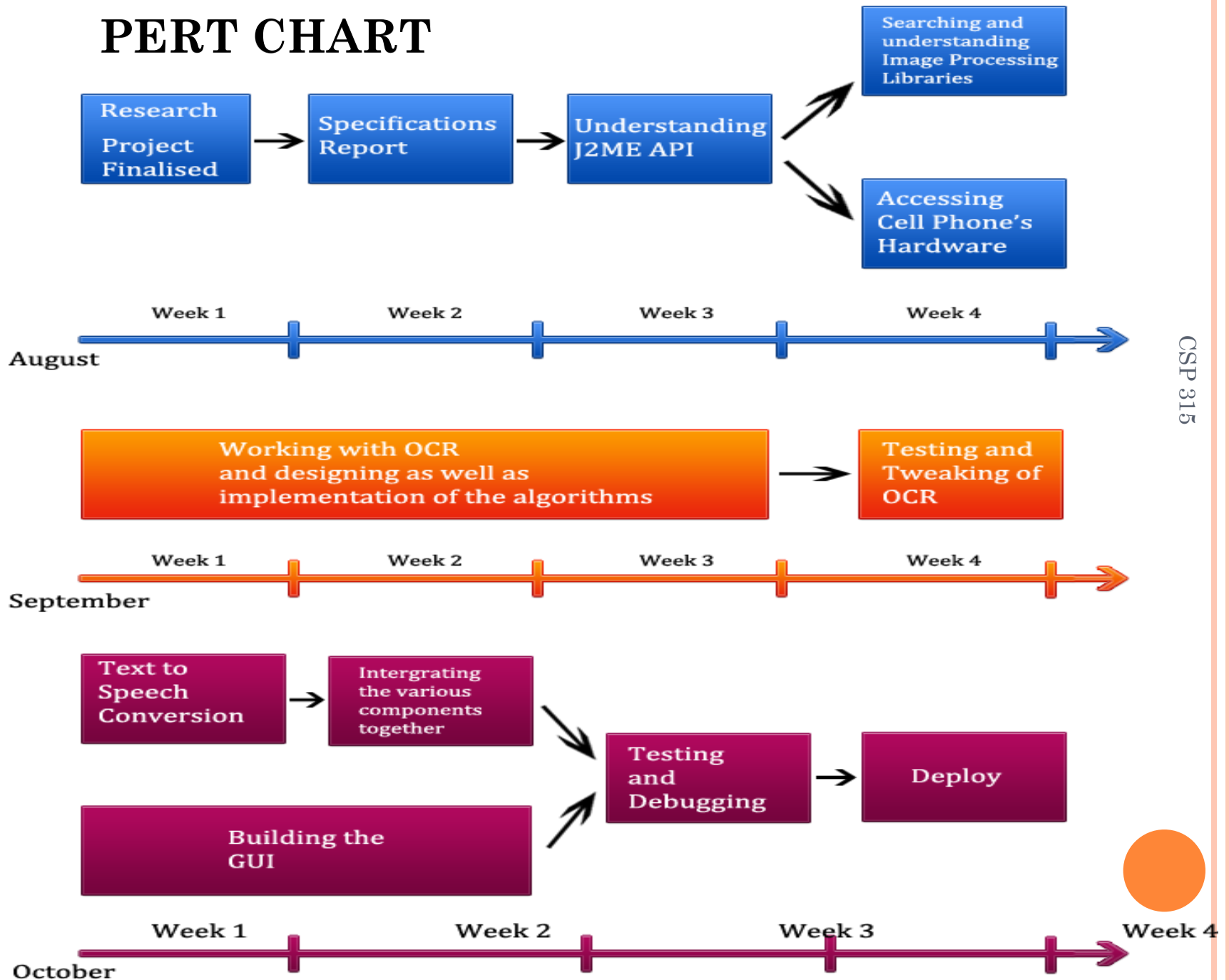


CHALLENGES

- Identifying the skew angle of an image.
- Extracting features from low quality image taken by mobile camera.
- Optimizing OCR to run on mobile platform.
- Integrating it with the default screen reader application.



PERT CHART



Task Assignment

Design of Algorithms, Procedures and Research work	Saqib Mumtaz Vidit Aatrey
Understanding and implementing the JAVA API Framework	Sanjeev Kumar Sangeet Aggarwal
GUI, Text to Speech and Understanding Platform	Yashdeep Singh Vikram Singh Meena



Web Link

<http://www.rupeereader.webs.com>

