

METU CENG491 2015 FALL

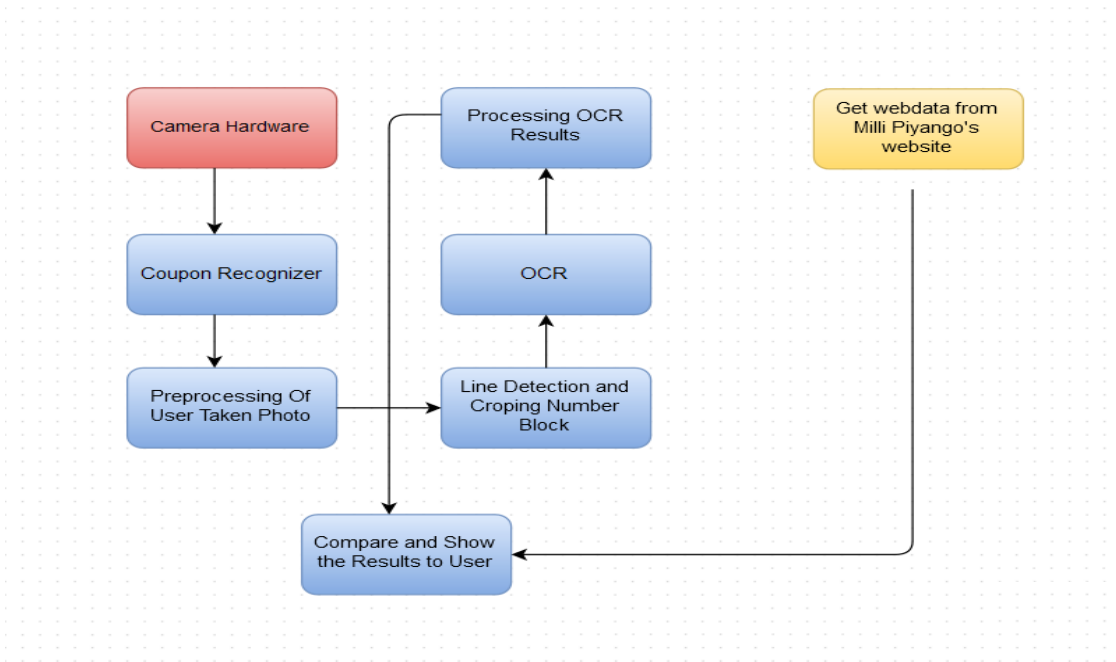
START-UP DOCUMENT

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Group Name: *TeamTrio*

Project Name: *Şans Oyunları Sonucu*

1. System Architecture



- Camera of the mobile device will be used to take photo.
- The lucky numbers will be obtained from Milli Piyango's website.
- To get the web data, internet connection is required.

The user interface of the application will be very friendly.

- The user will be able to use camera functionality by just touching the “Camera” button.
- After taking a photo, user will be able to accept the photo or try to take another if he/she could not take a proper one.
- To check the results user just needs to touch the related button.

2. Tentative Time Plan

- Identify and itemize all tasks to be performed as a team in the first semester. Assign a unique TaskID for each task. Give a short name and brief description for each identified task.

TaskID	Short Name	Description
T1	Setting up development environment	Andoid SDK, NDK , Tesseract OCR for Android, Opencv for Android libraries will be integrated into Eclipse IDE. OpenCV libraries will be integrated into CodeBlocks IDE.
T2	Learning, applying Tesseract	Tesseract OCR will be practiced with samples, its characteristic will be learned.
T3	Recognition of the game loto	The coupon type will be recognized via image processing. The application will know which type of coupon it is processing
T4	Preprocessing of image for line detection.	User taken photo will be processed for better line detection.
T5	Generating line detection code.	Line detection will be used to extract the number block from lottery coupons. These cropped images will be input for OCR operation.
T6	Training Tesseract OCR	Four different types of font will be trained for better character recognition. More than 20 samples will be used for each lottery game. (Sayisal Loto, Şans Topu, On Numara, Süper Loto)
T7	Extensive testing on coupon samples.	All the designed algorithms will be tested on samples which have different quality. They may be wrinkled or the light may not be enough to take clear image. User may be careless on taking photo.

- Construct your time plan as a simplified Gantt chart, as shown in the following table.

	Iteration1	Iteration2	Iteration3
T1	■		
T2	■		

T3	■	■	
T4	■	■	■
T5		■	■
T6		■	
T7		■	■

3. Deliverables

- *Identify and list all deliverables of your project for the first 3 sprints.*
- *A deliverable is some component or sub-component, which is running and demonstrable to your assistant and your supervisor. That deliverable is of course subject to improvement over time.*
- *Fill in the following table:*

Deliverable	Description	When? (Sprint#)
D1	Recognition of coupon type by logo.	1,2
D2	Preprocessing of the user taken photo.	1,2
D3	Line detection applied samples.	1,2
D4	Test results of OCR after training the OCR.	2
D5	Putting image processing and OCR operation together.	2,3
D6	Extensive testing on many samples, making optimizations if necessary.	3

4. Workload Distribution

Fill in the following table to distribute the workload for the first semester among your team members.

	Sprint - I	Sprint - II	Sprint - III
Mesut Yılmaz	T1, T2,D1,T3	T4,D2,T3	T5,D5
Ulaş Dalli	T1,T2,T3	T6,T3,D3	T7,D6
Ögem Çetin	T1,T2,T3	T6,D4	T5,T6