METU CENG491 2015 FALL

START-UP DOCUMENT

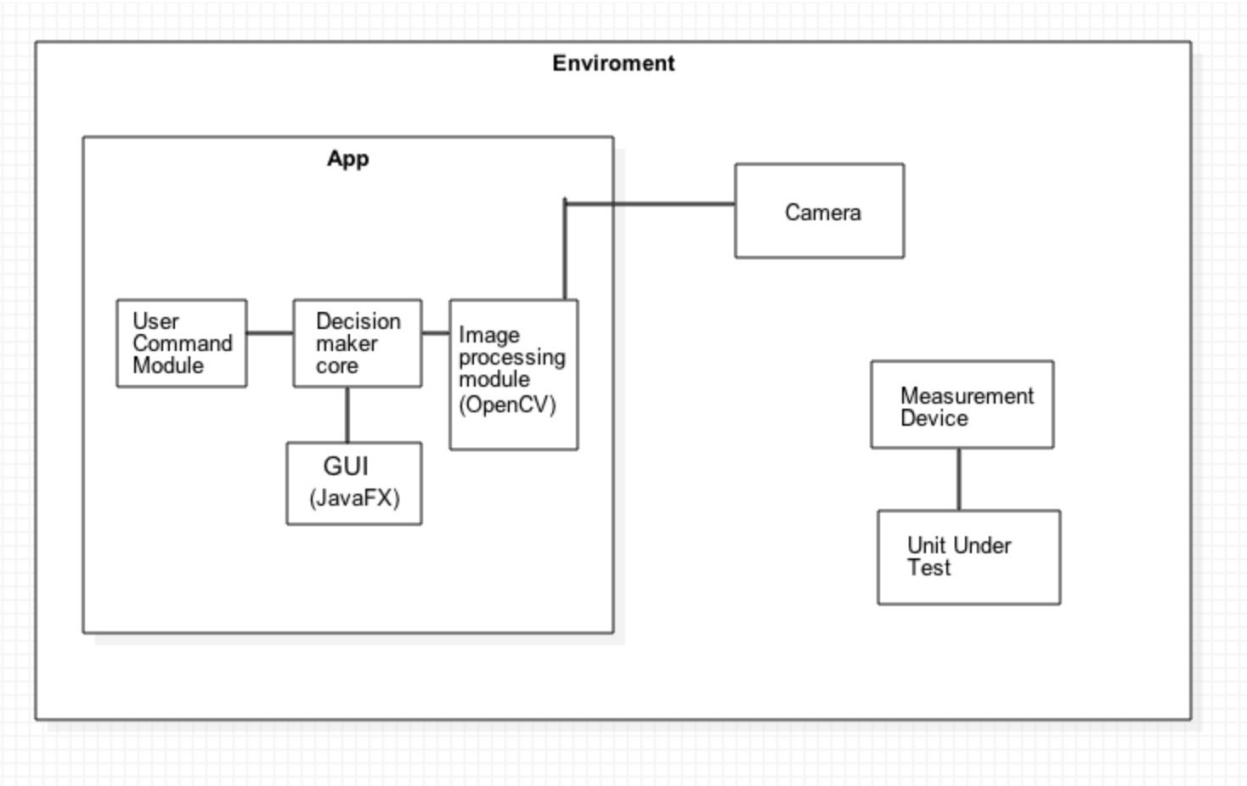
G28P32

Group Name: *Püsödökod*

Project Name: *MeasureGuide*

1. System Architecture

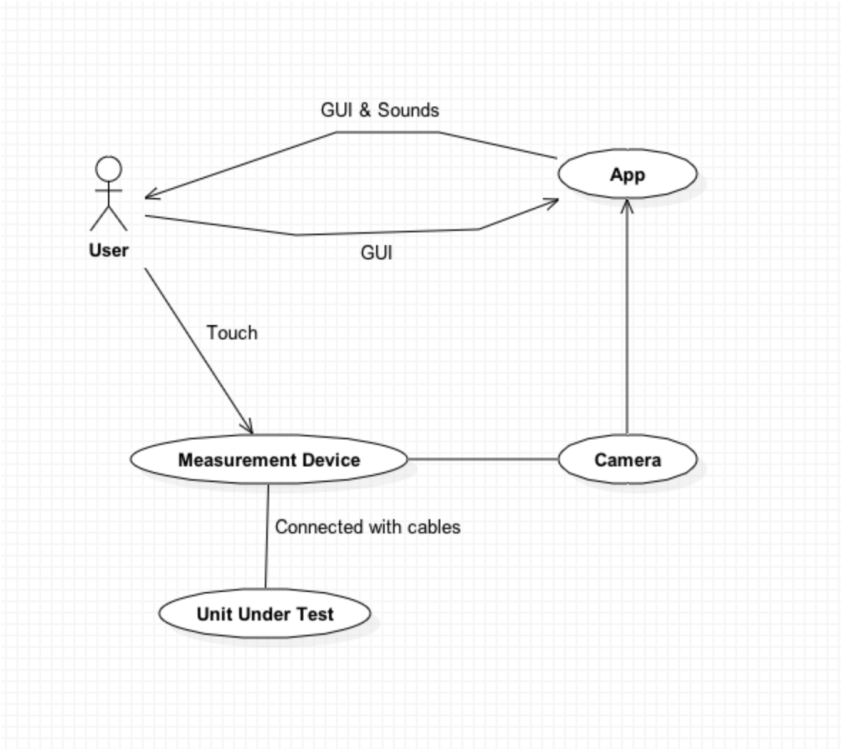
- *Draw the overall system architecture diagram. This should include (but it is not limited to) the components of the system, the interactions among the components and their dependencies.*



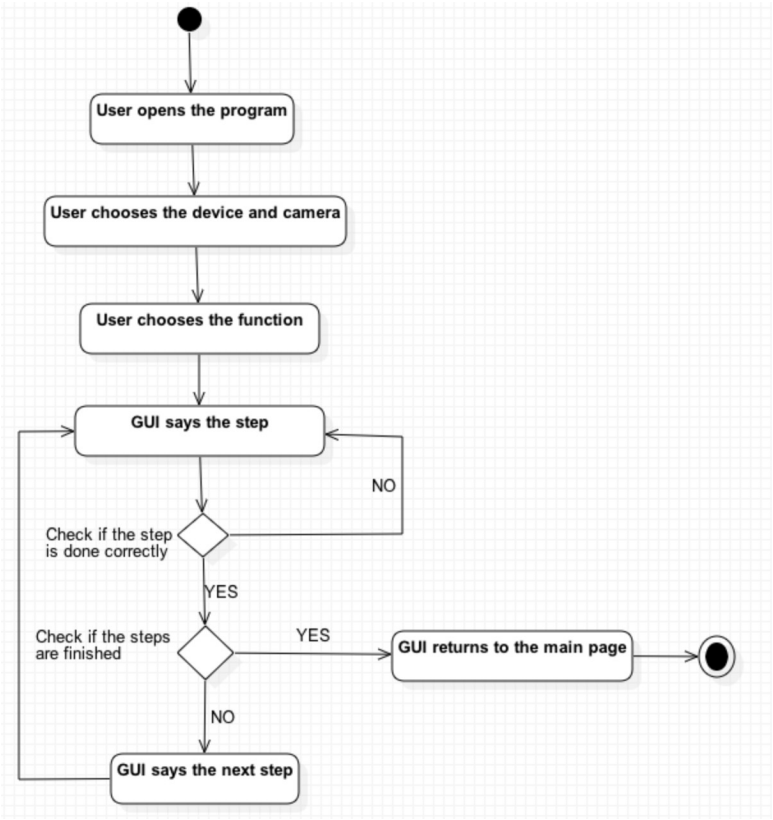
- *Identify and describe each component (including subcomponents if any), their interactions and dependencies clearly.*

  In the diagram above, it's been showed which components and subcomponents the system has. System environment has 3 main components as external camera device, desktop application and measurement device. There is a subcomponent called as Image processing module in order to carry the data from camera to decision maker core subcomponent. The data coming from external camera which is set up to watch measurement device and user's actions on it, is having a meaning by image processing module by comparing and matching the desired conclusion data stored in application's database. Since, it is aimed to be used like a user manual and a guide to the user during the system, user interface of the application has a major importance. Measurement device is connected to unit under test component.

- *Specify the user interaction model.*



(In the diagram above shows the interaction between user and system. User uses the measurement device with a command and sound instructions coming from GUI. This allows the system and GUI to create new steps.)



(The diagram above shows the working flow of our software.)

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	MD Recognition	Complete understanding of measurement device and its functions.
T2	Use case Phase	Preparing use cases of the system.
T3	Intro. UI	Deciding UI elements.
T4	Sound	Deciding sound-command relation.
T5	System Arch.	Deciding completed system architecture.
T6	UI Flow	Deciding the flow of UI pages for use cases.
T7	DB	Creating an image database for image matching purposes.
T8	UI first draft	Preparing the first draft of UI.

T9	Detect MD	Detecting the measurement device with image processing.
T11	Library search	Looking for open source image processing libraries(Image matching, OCR) which are compatible with our purposes.
T12	Detection	Detecting the device in whole image.
T13	Bounding-box	Drawing the bounding box for the image.
T14	Rotation of image	Rotating the image with its corresponding bounding box in order to locate it.
T15	Separating device	Separating the device into led, switch-rotary and cable parts.
T16	Cable Checking	Checking position of red and black cable.
T17	SwitchRotary checking	Checking position of switch rotary arrow.
T18	Apply OCR	Applying OCR to the led part.
T19	Web Page of Project	Developing of web page of project.
T20	SRS	Preparing SRS document of project.
T21	Presentation	Presentation of project for end of this semester.
T22	Cpp Integration	Integration of cpp files into java files.

(P.S: The previous T16(“Format Check”) and T17(“image matching”)are found unnecessary. Instead of making an exact image check we checked directly cable and switch rotary positions. So we opened two new tasks T16 is cable checking. T17 is SwitchRotary checking.)

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

	Iteration1	**Iteration2**	**Iteration3**
T1	*		

T2	*		
T3	*	*	
T4			***(will be continued)**
T5		*	
T6		*	*
T7		*	
T8			*
T9			*
T11	*	*	
T12		*	
T13		*	
T14		*	
T15		*	
T16			*
T17			*
T18			***(will be continued)**
T19			*
T20			*
T21			*
T22			*

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	Use cases of the system.	1
D2	Completed system architecture.	2
D3	Image database.	2
D4	First draft of UI.	3
D5	Web page of project	3
D6	Presentation	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
Sevim Begüm Sözer	D1,T1,T2,T4	D2,T5,T11,T12, T15	D6,T9,T15,T16,T17, T18
Sinan Sarıoğlu	D1,T1,T2,T4	D2, T5,T11,T12,T13	D6,T9,T15,T16,T17, T18,T22
Öykü Özlem Çakal	D1,T1,T2,T3	D2, D3,T3,T5,T6,T7	D4,D6,T6,T8,T15
Mert Ünsal	D1,T1,T2,T3	D2, D3,T3,T5,T6,T7	D4,D5,D6,T6,T8,T19