Project Design Phase-II
Data Flow Diagram & User Stories

Date	03 October 2022
Team ID	PNT2022TMID48537
Project Name	Project - Hand written digit recognition
Maximum Marks	4 Marks

Data Flow Diagrams:

```
                         ┌─────────────────────┐
                         │       Start          │
                         └──────────┬──────────┘
                                    │
                                    ▼
                    ┌───────────────────────────────────┐
                    │ Initialize peripherals: GPIO,      │
                    │ LCDC, VPIF and EMIFA               │
                    └───────────────┬───────────────────┘
                                    │
                                    ▼
                    ┌───────────────────────────────────┐
                    │ Capture the raw image by OV5640    │
                    └───────────────┬───────────────────┘
                                    │
                                    ▼
                           ◇ Is the key pressed? ◇────── N
                                    │ Y
                                    ▼
                    ┌───────────────────────────────────┐
                    │ Transfer RBG image to Gray image   │
                    └───────────────┬───────────────────┘
                                    │
                                    ▼
                    ┌───────────────────────────────────┐
                    │ Down sampling the image to 28*28   │
                    │ pixels                             │
                    └───────────────┬───────────────────┘
                                    │
                                    ▼
                    ┌───────────────────────────────────┐
                    │ Threshold the image                │
                    └───────────────┬───────────────────┘
                                    │
                                    ▼
                    ┌───────────────────────────────────┐
                    │ Recognize the image by pre-trained │
                    │ CNN                                │
                    └───────────────┬───────────────────┘
                                    │
                                    ▼
                    ┌───────────────────────────────────┐
                    │ Display the recognition result on  │
                    │ TFT LCD                            │
                    └───────────────────────────────────┘
```
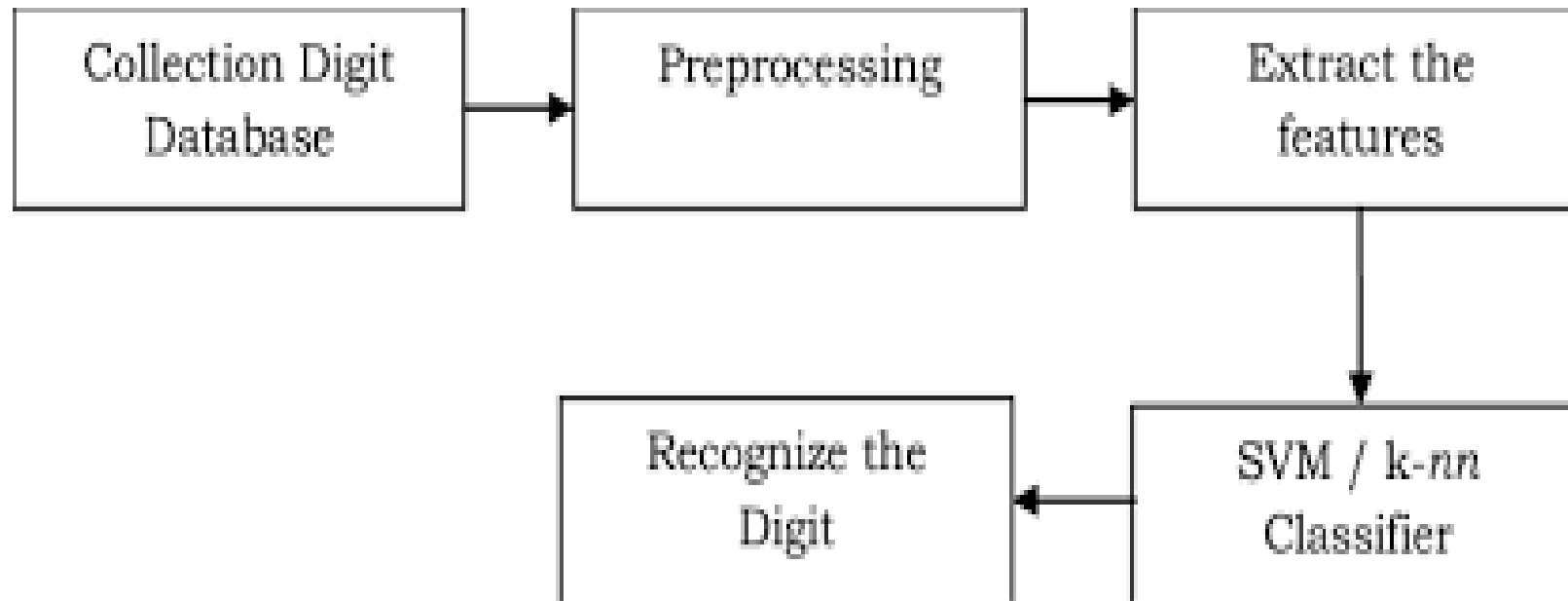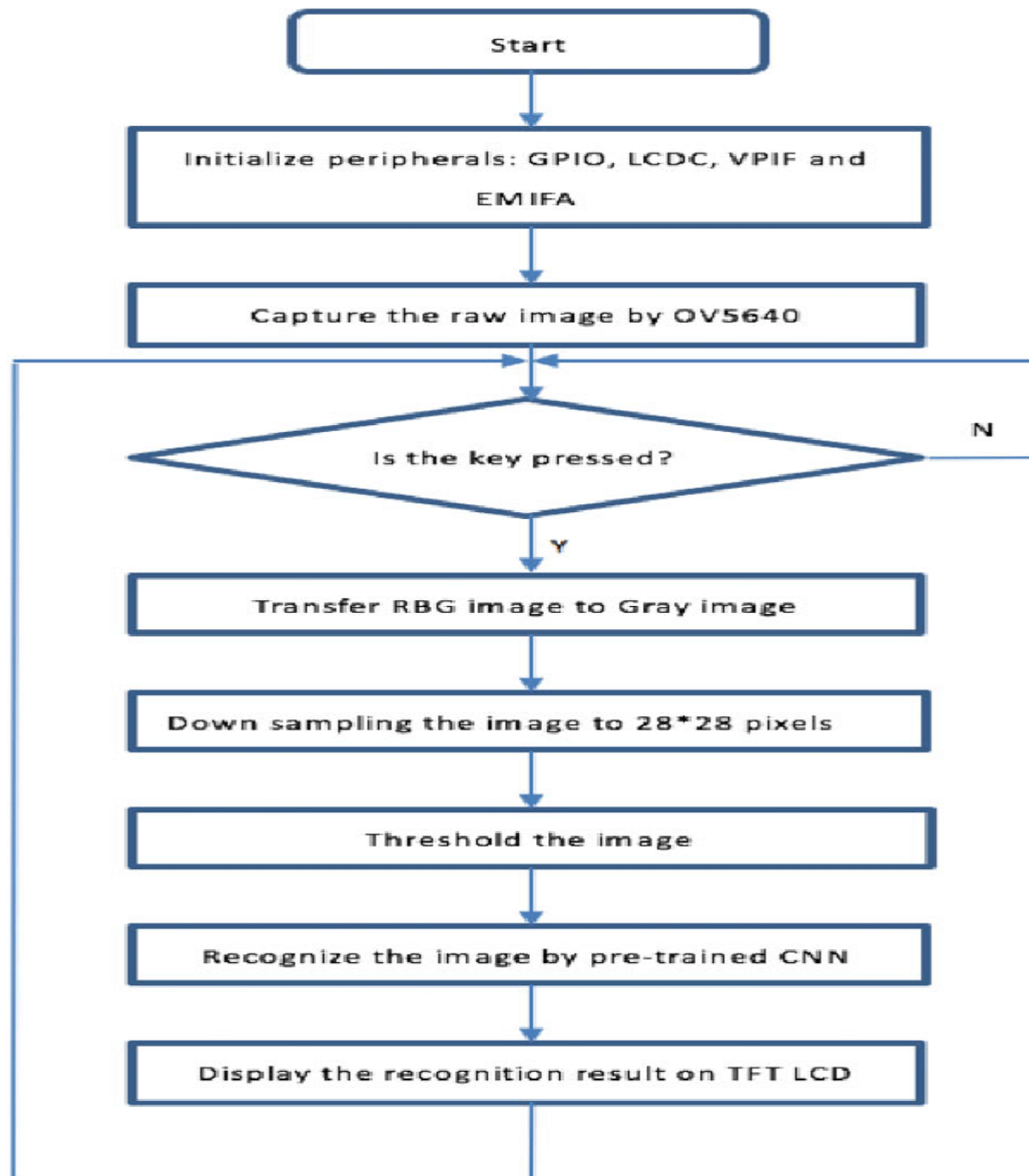
User Stories

Use the below template to list all the user stories for the product.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Mobile user)	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	I can access my account / dashboard	High	Sprint-1
		USN-2	As a user, I will receive confirmation email once I have registered for the application	I can receive confirmation email & click confirm	High	Sprint-1
		USN-3	As a user, I can register for the application through Facebook	I can register & access the dashboard with Facebook Login	Low	Sprint-2
		USN-4	As a user, I can register for the application through Gmail		Medium	Sprint-1
	Login	USN-5	As a user, I can log into the application by entering email & password		High	Sprint-1
	Dashboard					
Customer (Web user)			Input features can qualitative and quantitative i nature.Whereas,output features can be		low	sprint 2

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
			categorical values which are typical classes seen in data			
Customer Care Executive			They provide the detailed and required information that the user is seeking for.		medium	sprint 1
Administrator			Administrator is responsible for the entire task and progress during the execution of the program. Administrator holds the control of entire network.		high	sprint 1