

## Credit Card Processing System :-

### 1. Introduction

#### 1.1 Purpose of this Document

This document defines the functional and non-functional requirements. It provides necessary details, step-wise working needed to create an efficient and robust system.

#### 1.2 Scope of this Document

System must be able to perform :-

- Seamless payment with end-to-end encryption.
- Easy to understand and user-friendly interface.
- Monthly statement generation.

#### 1.3 Overview

Credit Card Processing System must be an embedded system that provides retailers to accept payment through credit cards.

### 2. General Description

User must provide card to cashier; if user has enabled tap functionality it can be tapped on POS machine otherwise insert into slot / swipe and pin must be entered after checking amount. If money is debited return sum and ~~generate~~ receipt close show error.

### 3. Functional Requirements:-

Seamless payments

Processor is not complex and doesn't include any technical knowledge.

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4. Interface

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Easy to use system  
Payments are easy as its just a tap/swipe  
is enough for payment.

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tides necessary  
ded to  
- system -

Monthly ~~acc~~ statement generation  
At the end of each month, track of all payments  
is assessed and total amount is sent to user's  
amount that has to be payed within deadline.

#### 4. Interface Requirements:-

Regional language must be available, list  
of options must be clearly displayed on screen  
and navigation must be easy.

#### 5. Performance Requirements:-

Response of query must have time limit if  
exceeded must timeout and return failure. 2GB RAM  
is minimum to ensure smooth experience.

#### 6. Design Constraints:-

User-friendly UI and International credit cards  
cannot be processed.

#### 7. Non-Functional Requirements:-

User pin must not be stored only used to check  
after check it must be discarded. Strong hash function  
must be for verification as it involves billions of dollars.

#### 8. Preliminary Schedule and Budget:-

The project must be completed with 10 months  
and budget to be allotted is 500,000\$ and  
if changes are required reserve budget must be used.



