Reg. # 2019-CE-150 \_Section C Name SHAHZAIB SHOAIB

Department: **Computer Engineering** Program: **BS (CE)**

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|  | Announced date: 24-5-2022 | Due Date: 17-6-2022 | Total Marks = 2 |
|  | Teacher Name: **Saba Ahsan** |  | Marks Obtained = |

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| **Complex Engineering Problem** | | | | | |
| **Sr. No** | **Course Learning Outcomes** | **Blooms Taxonomy** | **PLOs** | **Knowledge Profile** | **Complex Problem**  **Solving** |
| CLO\_3 | **Analyze** distributed computing systems and technologies based on various parameters | C4  (Analyzing) | PLO\_2  Problem Analysis | WK8: Research Literature | WP1: Depth of knowledge required  WP3: Depth of analysis required |

**Question 1**

A newly opened shopping mall in Karachi is going to introduce cashless money transfer system in all of its outlets. **Analyze**, how IoT, RFID, QR code or NFC will contribute in this new payment system.

The report must contain the following information:

* **Introduction:**

Today money changes hands through fingerprint and face recognition software, such as QR codes and RFID tags. All your money is in one place with the help of RFID,QR code,NFC and IOT we can easily transfer the money with no cash.

There are many contactless payment devices today using IOT,RFID,QR code and NFC technology. Some of the most popular devices used for payment settlement are smartphones and smartwatches. These smart devices use facial and fingerprint recognition to access mobile wallets such as Google Pay. Digital payments have transformed the way businesses receive payments and also the way consumers make payments thats why we introduce a cashless payment system

* **Target Audience:**

our target audience is that who have a bank account or who have a smart phones because we introduce a cashless maoney transfer system.In this system we make a face recognization when the customers enter in any outlets and pick a product so the charges will be added to his cart and the messges will be sent to his/her mobile phone and when he/she gets out of the outlet the money will be deducted from the account and our target audience can also be those who have a hazard to keep the cash.

* **Terms and Definition:**

In part, cashless payments refers to any exchange of value that does not involve actual physical currency. A cashless payment system operates without any involvement from a bank or other third party payment provider. Instead, end users directly join a payments system

* **Product Flow/Block Diagram:**



* **User Experience:**

people are getting comfortable with cashless payments because they dont need to keep the cash and dont be afraid for snatching and most of the best thing is that they do not have to worry about cash counter.