While the only solution which ensures security of ATM machines is a 4-digit PIN, there are still a lot of security cracks that can be used by the criminals to steal customer data and the 4-digit PIN itself. Fingerprint Based ATM is a desktop application where fingerprint of the user is used as an authentication. The fingerprint minutiae features are different for each human being so the user can be identified uniquely. Instead of using ATM card Fingerprint based ATM is safer and secure. You just must use your fingerprint to do any banking transaction. The user has to login using his fingerprint and he must enter the pin code to do further transaction. User can transfer money to various accounts by mentioning account number. User can view the balance available in his respective account. The system will provide the user to view last 5 transactions. Just In case we add a face identification feature to this system.