



# DataSync International

## A COMPUTER SCIENCE GROUP PROJECT

**Delhi Public School Bangalore North**

**CLASS XII SECTION A**

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**Term 1 Project Synopsis | 2021-2022**

*DataSync International Documentation*

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## INTRODUCTION TO DataSync INTERNATIONAL

### ABSTRACT

Banking is one of the main pillars of the economy in the world. This Banking Project aims to inculcate the feeling of managing a bank account by depositing, withdrawing, even creating a new bank account from scratch. It also offers other facilities like money transfer, blocking and unblocking bank accounts. The entire project is a similar replica of how a bank application actually works and what its functionalities offer to the user. As opposed to the existing system, which uses the python console itself as an interface, we propose a system which is more pleasing to the eyes and is user friendly.

### PURPOSE

This banking project was made to work and function as a bank application would in real life with basic features like depositions, withdrawals, and money transfers.

Now, the new code further provides high security to the account holder and verifies the user's authenticity by frequently providing and asking for OTP verification upon logging in .

Furthermore, the new system offers a more accessible and visually stylized look to the interface, with the help of a number of modules.

This is all in addition to user convenience like an in-built chat bot, currency converters and so on.

## Existing System

### PREVIOUS SYSTEM DETAILS

- No Database Management System was used.
- Slow and inconsistent
- Inconvenient for the user and sometimes crashed
- Not always user friendly
- CUI based code and execution

## Proposed System

### NEW SYSTEM DETAILS

- MySQL Database Management System is being used.
- Fast and very consistent
- Almost no crashes were found
- User friendly and secure
- GUI based code and execution

# Development Requirements

## HARDWARE REQUIREMENTS

- PC - Core i3/i5 10th Gen
- 4 GB RAM / 8 GB RAM/ 12 GB RAM

## SOFTWARE REQUIREMENTS

### OPERATING SYSTEM

- Windows 10 x64 (64-bit Operating System)

### PROGRAMMING LANGUAGE

- Python 3.8/ Python 3.9

### INTEGRATED DEVELOPMENT ENVIRONMENT

- Pycharm 2021.2.2
- Visual Studio Code
- Anaconda Spyder

### DATABASE MANAGEMENT SYSTEM

- MySQL Community Server 8.0

# Deployment Requirements

## HARDWARE REQUIREMENTS

- PC - Core i3/i5 10th Gen
- 4 GB RAM / 8 GB RAM/ 12 GB RAM

## SOFTWARE REQUIREMENTS

- Windows 10 x64

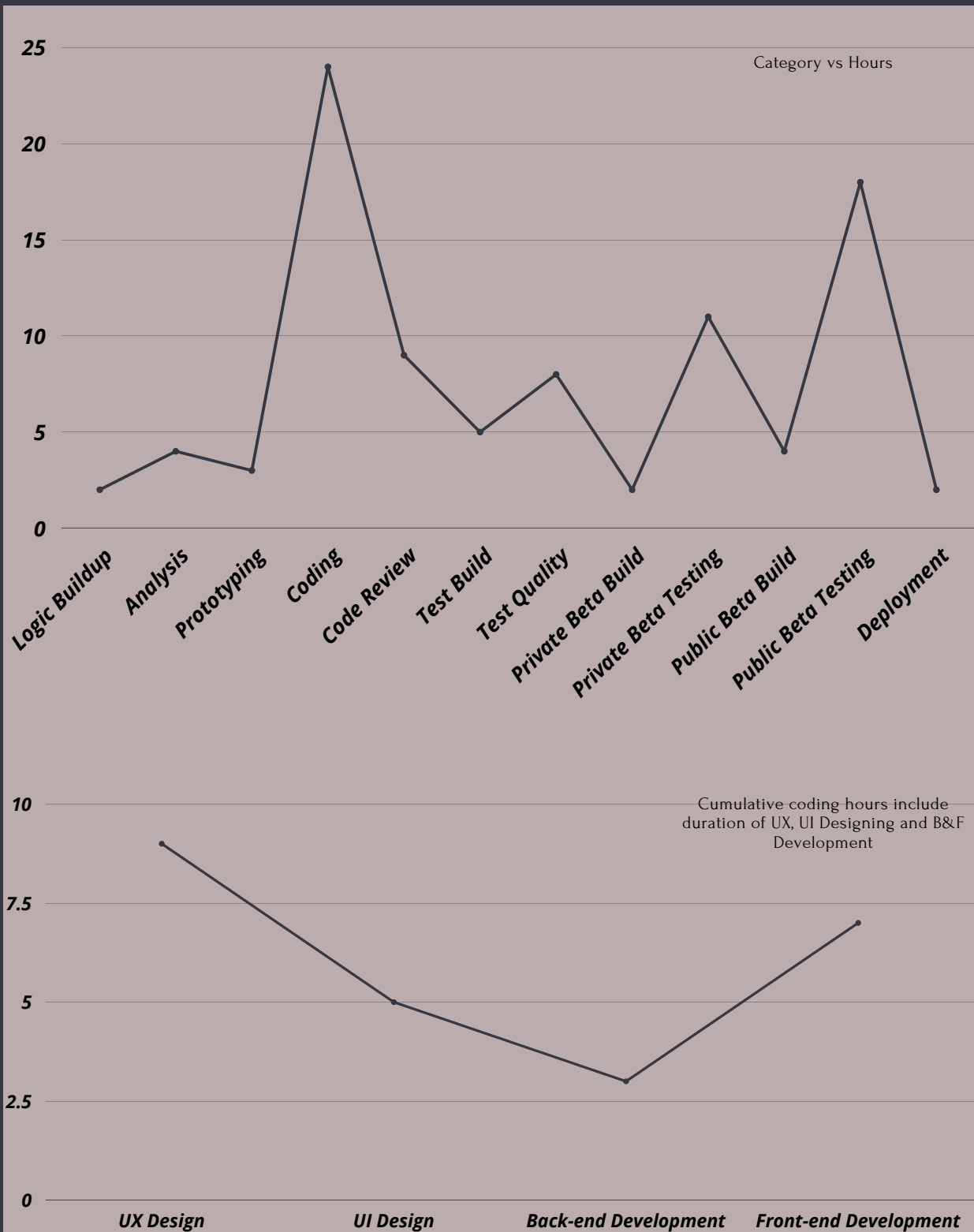
## Modules Used

PYTHON 3.9

- MySQL.connector
- time
- Tkinter
- sys
- DateTime
- calendar
- threading
- plyer
- random

## Project Design

### TIMELINE



## Project Design

### DATABASE DESIGN STRUCTURE

*The different fields in our database are:*

NAME: Stores the full name of the client

EMAIL: Stores the email address of the client

USERNAME: Stores the username of the client

PASSWORD: Stores the hashed password of the client

ACCOUNT\_IN\_USE PERMISSION: Stores a True or False value for the current state of the client's account

PASSWORD\_SALT: Stores a unique salt, making the hashed password unique for all clients

PHONE: Stores the phone number of the client

ADDRESS: Stores a three-lined address of the client

CARD\_NUMBER: Stores the card number of the client

BALANCE: Stores the amount of money currently in the client's account

TRANSFERS: Stores the net amount of money transferred by the client

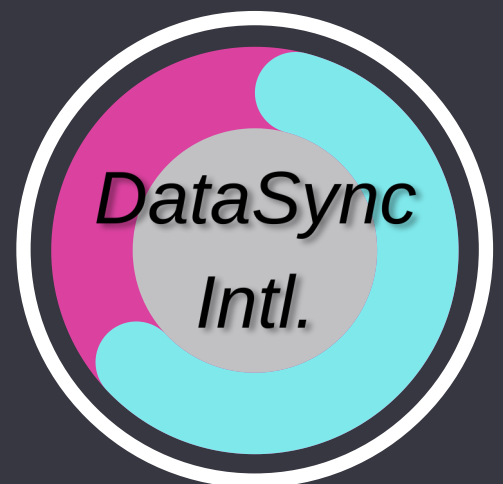
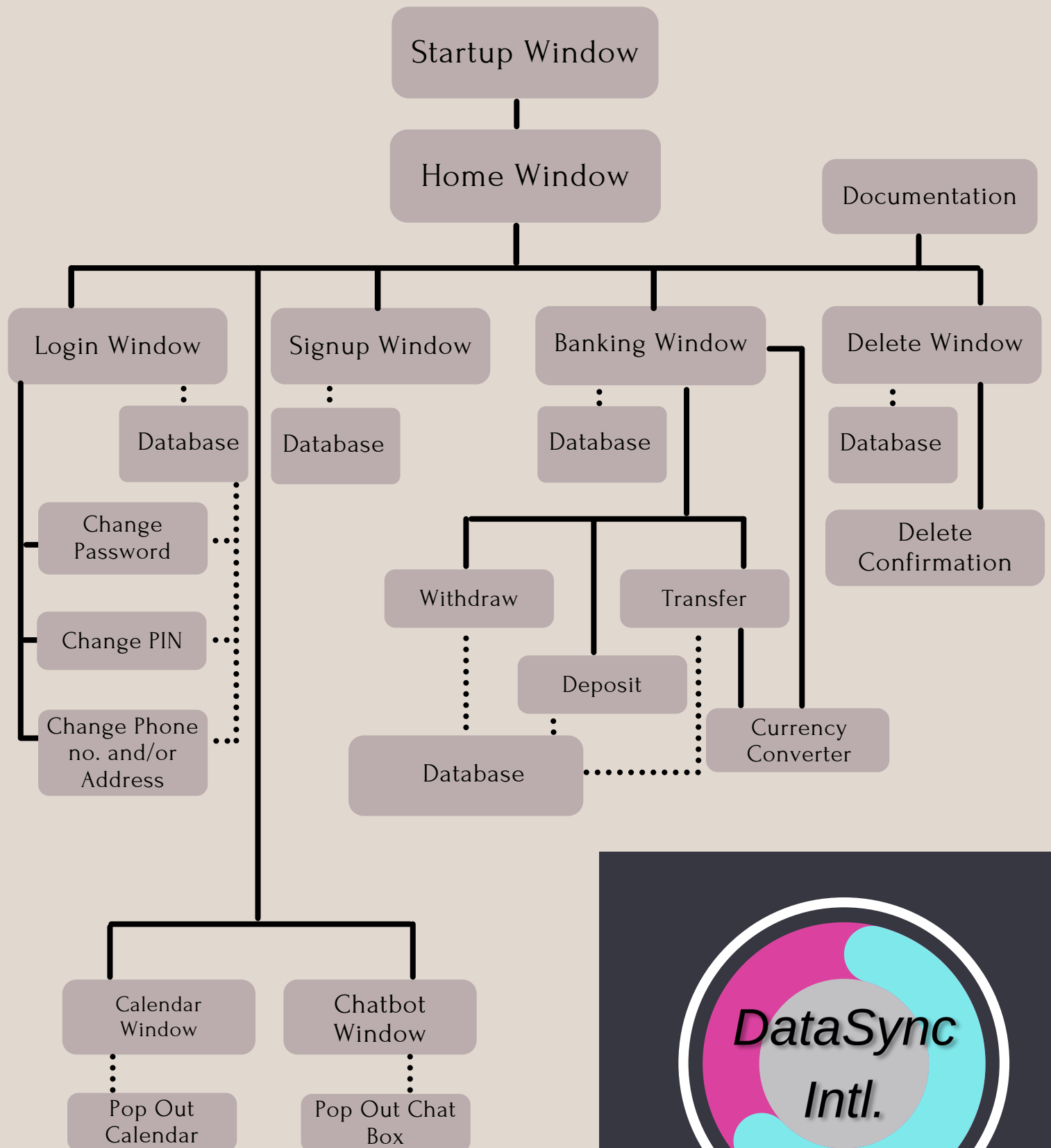
WITHDRAWALS: Stores the total amount of money withdrawn by the client from his/her account

DEPOSITS: Stores the total amount of money deposited by the client into his/her account



# Project Design

## FLOW CHART



## DataSync

INTERNATIONAL

### CONCLUSION

Datasync International - The Banking Project is an advanced and improved version of our Banking Project from a year ago (2020), where we tried to mimic an everyday/generic bank website to the best of our ability.

This new program continues to present the user with options to inculcate the feeling of using actual banking sites but now in the form of an application.

Through the project, we learned new things about app development and problem solving involved in it.

We learned many ways to use the concepts we learned to create a more coherent and visually pleasing program.

Furthermore, we expanded our knowledge and embraced our artistic tendencies while designing the look and feel of our application windows.

From aesthetic colors to the UX design, there was a lot of experimentation to reach the final product.

We, together as a team managed to accommodate and incorporate every member's thoughts and ideas into the program while helping one another detect and resolve flaws.

# Thank you !