

# **Architecture document design**

**Instagram profile DP downloader & Post Uploader Mobile app.**

## Document Version Control

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# 1. Introduction

## 1.1 what is Architecture design document

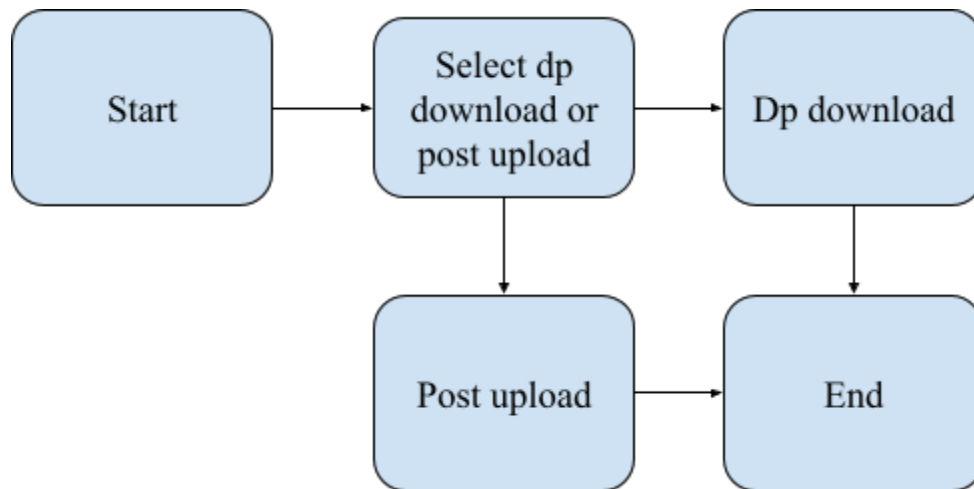
Any software needs architectural design to represent the design of the software. IEEE defines architectural design as the “ The process of defining a collection of hardware and software components and their interfaces to establish the framework for the development of a computer system.” The software that is built for computer-based systems can exhibit one of these architectures. Each style will describe a system category that consists of

- A set of components that will perform a function required by the system.
- The set of connectors will help in coordination, communication, and cooperation between the components.
- Conditions that how components can be integrated to form the system.
- Semantic models help the designer to understand the overall properties of the system.

## 1.2 Scope

Architecture design document is an architectural design process that follows a step-by-step refinement process. The process can be used for designing data structures, required software architecture, source code and ultimately, performance algorithms. Overall, the design principle may be defined during requirement analysis and then refined during architectural design work.

## 1. Architecture



## **2. Architecture Description**

### **2.1 Select dp download or post upload**

From here the app is bifurcated into two parts i.e dp download page and post uploader page.

### **2.2 Dp Download**

Here, users have to enter the username in order to download their dp.

### **2.3 Post upload**

Here, users have to enter the necessary credentials for logging into their account so that the post can be uploaded.

### 3. Components

The components which are used in this instagram dp download and post upload app is kivy, kivyMD, buildozer, and some external font scripts

#### 3.1 Kivy

Kivy is a free and open source Python framework for developing mobile apps and other multitouch application software with a natural user interface. It is distributed under the terms of the MIT License, and can run on Android, iOS, Linux, macOS, and Windows

#### 3.2 KivyMD

KivyMD is a collection of Material Design widgets for use with Kivy, a GUI framework for making mobile applications, a framework for cross-platform, touch-enabled graphical applications.

#### 3.3 BuildOzer

Buildozer is a tool that aims to package mobile applications easily. It automates the entire build process, download the prerequisites like python-for-android, Android SDK, NDK, etc.

Buildozer manages a file named buildozer.spec in your application directory, describing your application requirements and settings such as title, icon, included modules etc. It will use the specification file to create a package for Android, iOS, and more.

★ DancingScript-Regular has been used for giving the different font to the app

## 4. Technical Requirement

### 4.1 Input Schema

Input schema for dp download

Feature Name	Datatype	Null/required
Username	varchar	required

Input schema for Post upload

Feature Name	Datatype	Null/required
Username	varchar	required
Password	varchar	required
caption	varchar	Null

### 4.2 Logging

We should be able to log every activity done by the user.

- The System identifies at what step logging required
- The System should be able to log each and every system flow.
- Developers can choose logging methods. You can choose database logging/ File logging as well.
- System should not be hung even after using so many loggings. Logging just because we can easily debug issues so logging is mandatory to do.

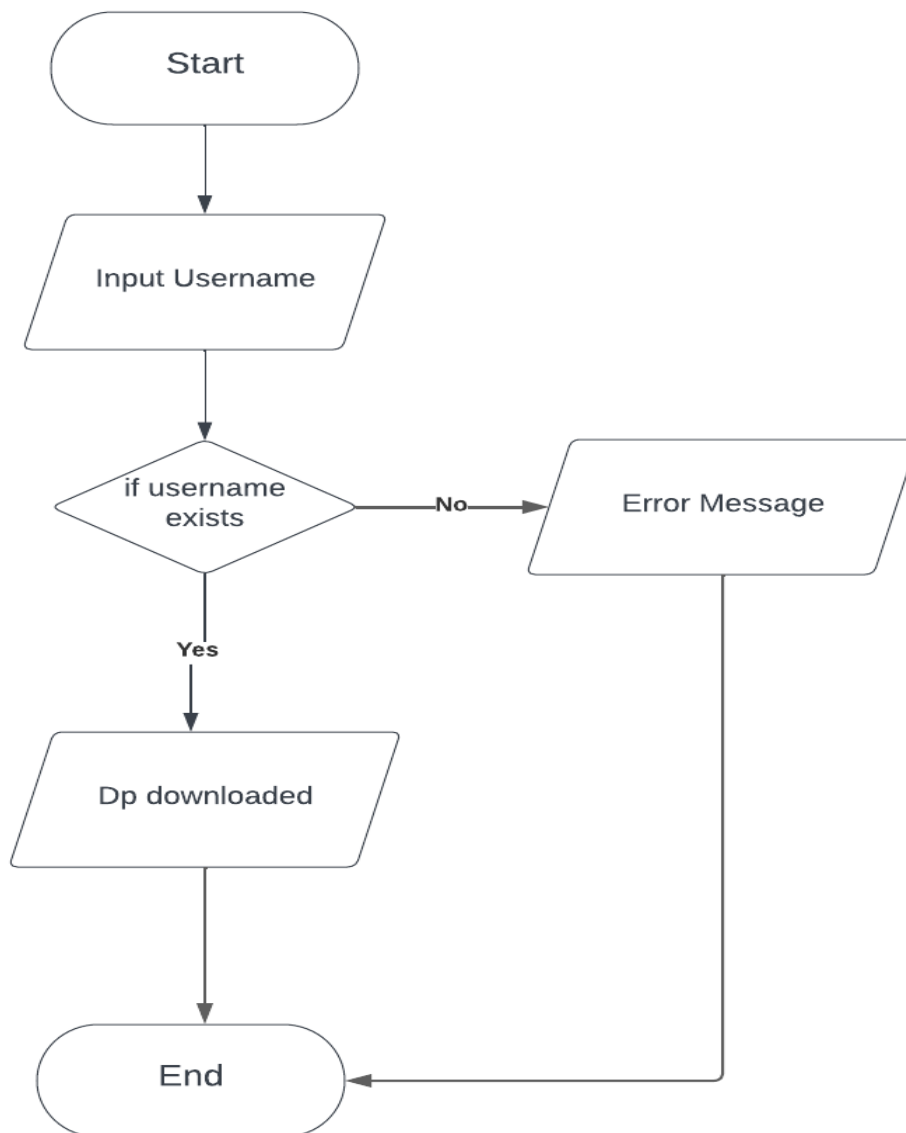


## 5. Technology stack

<b>Front-End</b>	<a href="#">Kivy</a>
<b>Back-End</b>	<a href="#">Python</a>

## 6. App Workflow

### 6.1 Dp download Workflow



## 6.2 Post Upload Workload

