

# **Project Document - IPO Web App Development**

**Workspace Login URL :** <https://bluestock.in/blueflow/m>

**Login Details :** You will receive over mail

**Work Policy :** <https://bluestock.in/hr/work-policy.html>

**Project:** IPO Web Application & REST API Development

**Company:** Bluestock Fintech

**Website :** [www.bluestock.in](http://www.bluestock.in)

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**Date:** 01/06/2025

**Department :** #BF-SOFT-DEV

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## **Important :-**

This project documentation is the intellectual property of Bluestock Fintech and must not be shared, distributed, or disclosed without prior authorization.

Check UI UX Design- <https://www.figma.com/design/aNuWMnljXdsVgCP350ftH/IPO-Web-App---M2-J1?node-id=0-1&t=JkmueTlnQSBelW6n-1>

Check System Design: - <https://www.figma.com/board/g9bjreevYNJkfMuwRacyaP/System-Design?t=rhom7O3DRI5pdHkG-1>

Assets (Logo,SVG, PNG Etc : [https://drive.google.com/drive/folders/1yH9Y\\_mlqqEkZXtzhqHSuFtEwFO8BXH5?usp=drive\\_link](https://drive.google.com/drive/folders/1yH9Y_mlqqEkZXtzhqHSuFtEwFO8BXH5?usp=drive_link)

## **Introduction**

This report outlines the production-level software development tasks assigned to our interns at Bluestock Fintech. The project involves developing an IPO web application and design REST API for the Bluestock website/app and our clients' websites/apps. These tasks are designed to enhance the interns' practical

knowledge and contribute to our ongoing projects. Each task aligns with our company's goals and the interns' skills and career aspirations.

### **Objective:**

Develop a web application and REST API that provides IPO-related information to the public. The application will display information such as company logo, name, price band, opening and closing dates, issue size, issue type, listing date, status, IPO price, listing price, listing gain, current market price (CMP), and current return. Additionally, it will include downloadable RHP and DRHP PDFs.

**Data Source :** Add dummy IPO Data in database which shown on upcoming ipo webpage (refer ui ux design)

### **Software Requirements**

Backend:

- SDK: Python (Version 3.12.3)
- Framework: Django (Version 5.0.6) - `pip install Django`
- API: Django REST Framework (Version 3.15.1) - `pip install djangorestframework`
- Tools: Postman for API testing, Git & GitHub for version control

Frontend:

- Technologies: HTML, CSS, plain JavaScript (no NodeJS)
- Framework: Bootstrap 5 (via CDN link)
- Database: PostgreSQL
- IDE: Visual Studio Code (VS Code)

### **1. Prerequisites**

Interns are required to familiarize themselves with the following concepts before starting the project:

What is Stock Market ? - <https://youtu.be/Zt6bVL39b9M?si=efZqf77wkWaOrnAQ>

What is IPO ? - [https://youtu.be/gWrR5qPEmWE?si=QAf19b\\_i-uSMn3vV](https://youtu.be/gWrR5qPEmWE?si=QAf19b_i-uSMn3vV)

### **PROJECT FEATURES**

Public User Interface:

- Home page: List of IPOs (upcoming, ongoing, listed)

- IPO detail page with full IPO data
- Download RHP & DRHP PDFs
- Search & Filter by status or name

#### Admin Panel:

- Login-secured interface
- Create, update, delete IPO data
- Upload PDF files (RHP, DRHP)
- Manage logos and all IPO fields

#### API:

- /api/ipo/ — List IPOs
- /api/ipo/<id>/ — IPO details
- Filtering, search & sort support

This information will be available on both the Bluestock website/app and clients' websites/apps.

### PROJECT STRUCTURE

```

ipo_project/
├── ipo_app/
│   ├── models.py
│   ├── views.py
│   ├── serializers.py
│   ├── urls.py
│   └── admin.py
├── ipo_project/
│   ├── settings.py
│   └── urls.py
├── media/ # PDF & logo uploads
├── templates/
│   ├── home.html, detail.html, ...
├── static/
├── db.sqlite3 / PostgreSQL
└── manage.py

```

## Development Overview

Important Notes:-

- This is a production-level project; therefore, write quality code and test features regularly.
- Apply necessary security rules to ensure data protection and integrity.
- Utilize ChatGPT for testing code, writing features, and designing the database schema.

### 1. References

<https://youtu.be/s7aINQPGNDM?si=ydfab7GMUaMCg91W>

[https://www.youtube.com/watch?v=C1NgOmoOszc&list=PLjVLYmrlmjGcyt3m6rt21nfjhYSWP\\_Ue\\_](https://www.youtube.com/watch?v=C1NgOmoOszc&list=PLjVLYmrlmjGcyt3m6rt21nfjhYSWP_Ue_)

<https://youtu.be/5EY6JFptZgw?si=nwZ5DE7nVc4TXs8X>

## 9.Deadlines

Date	Work Status
-	Complete All Frontend (Client Side, Admin Dashboard)
-	Complete Entire Project

//Deadline for entire project submission updated in workspace

## Submission Guidelines

- Do not commit buggy or error-prone code.
- Thoroughly test your code on your local machine before committing.
- Commit changes to the main branch and push them.

## 10. Resources for This Project Assets

(Logo,SVG, PNG Etc) :

[https://drive.google.com/drive/folders/](https://drive.google.com/drive/folders/11Q6kapopPp4tVn82QKRCX8cpHYHO5GCK?usp=drive_link)

[11Q6kapopPp4tVn82QKRCX8cpHYHO5GCK?usp=drive\\_link](https://drive.google.com/drive/folders/11Q6kapopPp4tVn82QKRCX8cpHYHO5GCK?usp=drive_link)

(Request Access)

## Figma UI/UX Prototype:

Please visit link for complete details -

<https://www.figma.com/design/aNuWMnInjXdsVgCP350ftH/IPO-Web-App---M2-J1?node-id=0-1&t=JkmueTInQSBELW6n-1>

BF Bluestock Fintech

Search

Hi, Vishal

MENU

Dashboard

Manage IPO

IPO Subscription

IPO Allotment

OTHERS

Settings





















API Manager

Accounts

Help

Upcomming IPO | Dashboard

Register IPO

Company	Price Band	Open	Close	ISSUE SIZE	ISSUE Type	Listing Date	Status	Action	Delete/View
Adani Power	₹ 329 - 136	2023-06-03	2024-06-05	45530.15 Cr.	Book Built	2023-06-10	Ongoing	Update	 
VBL LTD	₹ 229 - 136	2024-06-03	2024-06-05	1330.15 Cr.	Book Built	2018-06-10	Comming	Update	 
Tata Motor	₹ 12549 - 136	2024-06-03	2024-06-05	1340.15 Cr.	Book Built	2016-06-10	New Listed	Update	 
HDFC LTD	₹ 1244 - 136	2024-06-03	2024-06-05	830.15 Cr.	Book Built	2029-06-11	Comming	Update	 
Tata Motor	₹ 629 - 136	2024-06-01	2024-06-05	820.15 Cr.	Book Built	2023-06-10	Ongoing	Update	 
VBL LTD	₹ 629 - 136	2024-06-03	2024-06-05	130.15 Cr.	Book Built	2024-06-10	Comming	Update	 
Tata Motor	₹ 6729 - 136	2024-06-03	2024-06-05	170.15 Cr.	Book Built	2027-06-10	New Listed	Update	 
VBL LTD	₹ 1629 - 136	2024-06-03	2024-06-05	130.15 Cr.	Book Built	2022-06-10	Comming	Update	 
Tata Motor	₹ 2329 - 136	2024-06-03	2024-06-05	130.15 Cr.	Book Built	2023-06-10	New Listed	Update	 
VBL LTD	₹ 329 - 136	2024-06-03	2024-06-05	130.15 Cr.	Book Built	2021-06-10	Comming	Update	 

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...

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BP Bluestock Fintech

Search

Hi, Vishal

MENU

Dashboard

Manage IPO

IPO Subscription

IPO Allotment

OTHERS

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API Manager

Accounts

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Upcomming IPO Information

Register

Cancel

Manage your IPO Details

IPO Information

IPO Info

Company Logo

NSE India

Tech Lead

Pune

Upload Logo

Delete

Company Name

Vodafone Idea

Price Band

Not Issued

Open

Not Issued

Close

Not Issued

Issue Size

2300 Cr.

Issue Type

LISTING DATE

Not Issued

Status

NEW LISTED IPO DETAILS (WHEN IPO GET LISTED)

IPO PRICE

₹ 383

LISTING PRICE

₹ 435

LISTING GAIN

13.58 %

LISTING DATE

2024-05-30

CMP

₹410

CURRENT RETURN

7.05 %

RHP

Enter RHP PDF Link

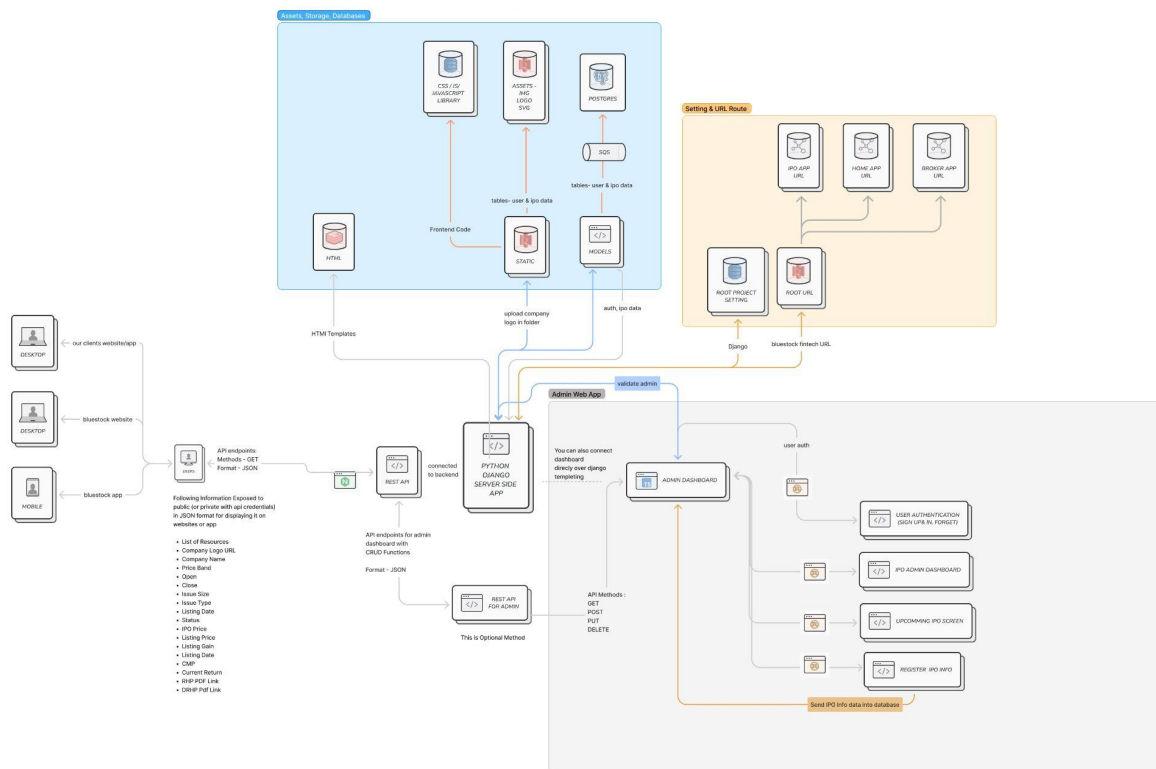
DRHP

Enter DRHP PDF Link

**System Design:**

View More: -

<https://www.figma.com/board/g9bjreevYNJkfMuwRacyaP/System-Design?node-id=0-1&p=f>



## System Design : IPO Web Application & REST API By Bluestock Fintech

### Django Models

from django.db import models

```
class IPO(models.Model):
    STATUS_CHOICES = [
        ('upcoming', 'Upcoming'),
        ('ongoing', 'Ongoing'),
        ('listed', 'Listed'),
    ]
```

```
company_name = models.CharField(max_length=255)
logo = models.ImageField(upload_to='logos/')
price_band = models.CharField(max_length=100)
open_date = models.DateField()
close_date = models.DateField()
issue_size = models.CharField(max_length=100)
issue_type = models.CharField(max_length=100)
listing_date = models.DateField(null=True, blank=True)
status = models.CharField(max_length=20, choices=STATUS_CHOICES)
ipo_price = models.FloatField(null=True, blank=True)
```

```

listing_price = models.FloatField(null=True, blank=True)
current_market_price = models.FloatField(null=True, blank=True)
rhp_pdf = models.FileField(upload_to='docs/', null=True, blank=True)
drhp_pdf = models.FileField(upload_to='docs/', null=True, blank=True)

@property
def listing_gain(self):
    if self.ipo_price and self.listing_price:
        return round(((self.listing_price - self.ipo_price) / self.ipo_price) * 100, 2)
    return None

@property
def current_return(self):
    if self.ipo_price and self.current_market_price:
        return round(((self.current_market_price - self.ipo_price) / self.ipo_price) * 100, 2)
    return None

def __str__(self):
    return self.company_name

```

## ER Diagram Description:

### Entities and Attributes:

#### 1. Companies

- **company\_id**: INT (Primary Key, Auto-Increment)
- **company\_name**: VARCHAR(255) (Not Null)
- **company\_logo**: VARCHAR(255) (URL or file path)

#### 2. IPOs

- **ipo\_id**: INT (Primary Key, Auto-Increment)
- **company\_id**: INT (Foreign Key referencing Companies.company\_id)
- **price\_band**: VARCHAR(50)
- **open\_date**: DATE
- **close\_date**: DATE
- **issue\_size**: VARCHAR(100)
- **issue\_type**: VARCHAR(50)
- **listing\_date**: DATE
- **status**: ENUM('Upcoming', 'Open', 'Closed', 'Listed')
- **ipo\_price**: DECIMAL(10,2)
- **listing\_price**: DECIMAL(10,2)
- **listing\_gain**: DECIMAL(5,2)
- **current\_market\_price**: DECIMAL(10,2)



- **current\_return**: DECIMAL(5,2)

### 3. Documents

- **document\_id**: INT (Primary Key, Auto-Increment)
- **ipo\_id**: INT (Foreign Key referencing IPOs.ipo\_id)
- **rhp\_pdf**: VARCHAR(255) (URL or file path)
- **drhp\_pdf**: VARCHAR(255) (URL or file path)

### Relationships:

#### 1. Companies to IPOs

- **Type**: One-to-Many
- **Description**: One company can have multiple IPOs, but each IPO is associated with exactly one company.
- **Foreign Key**: company\_id in IPOs references company\_id in Companies.
- **On Delete**: CASCADE (if a company is deleted, all related IPOs are deleted).

#### 2. IPOs to Documents

- **Type**: One-to-Many
- **Description**: One IPO can have multiple documents, but each document is associated with exactly one IPO.
- **Foreign Key**: ipo\_id in Documents references ipo\_id in IPOs.
- **On Delete**: CASCADE (if an IPO is deleted, all related documents are deleted).

[Companies] --(1:N)-- [IPOs] --(1:N)-- [Documents]

company_id (PK)	ipo_id (PK)	document_id (PK)
company_name	company_id (FK)	ipo_id (FK)
company_logo	price_band	rhp_pdf
	open_date	drhp_pdf
	close_date	
	issue_size	
	issue_type	
	listing_date	
	status	
	ipo_price	
	listing_price	
	listing_gain	
	current_market_price	
	current_return	