SOFTWARE DESIGN

FUND REQUESTS MANAGEMENT

fundit

ARCHITECTURE DIAGRAMS

PREPARED BY DIVPLUSPLUS

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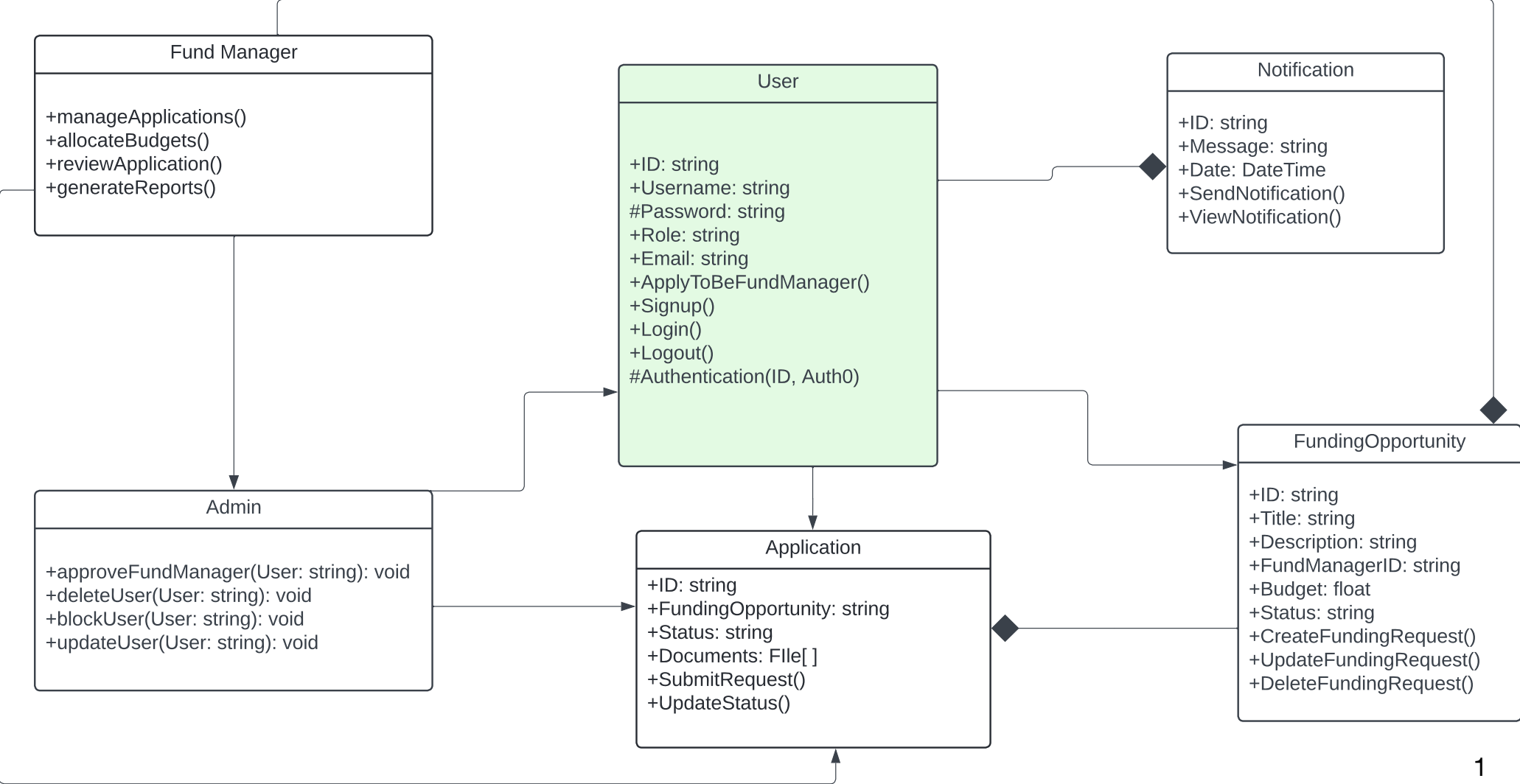
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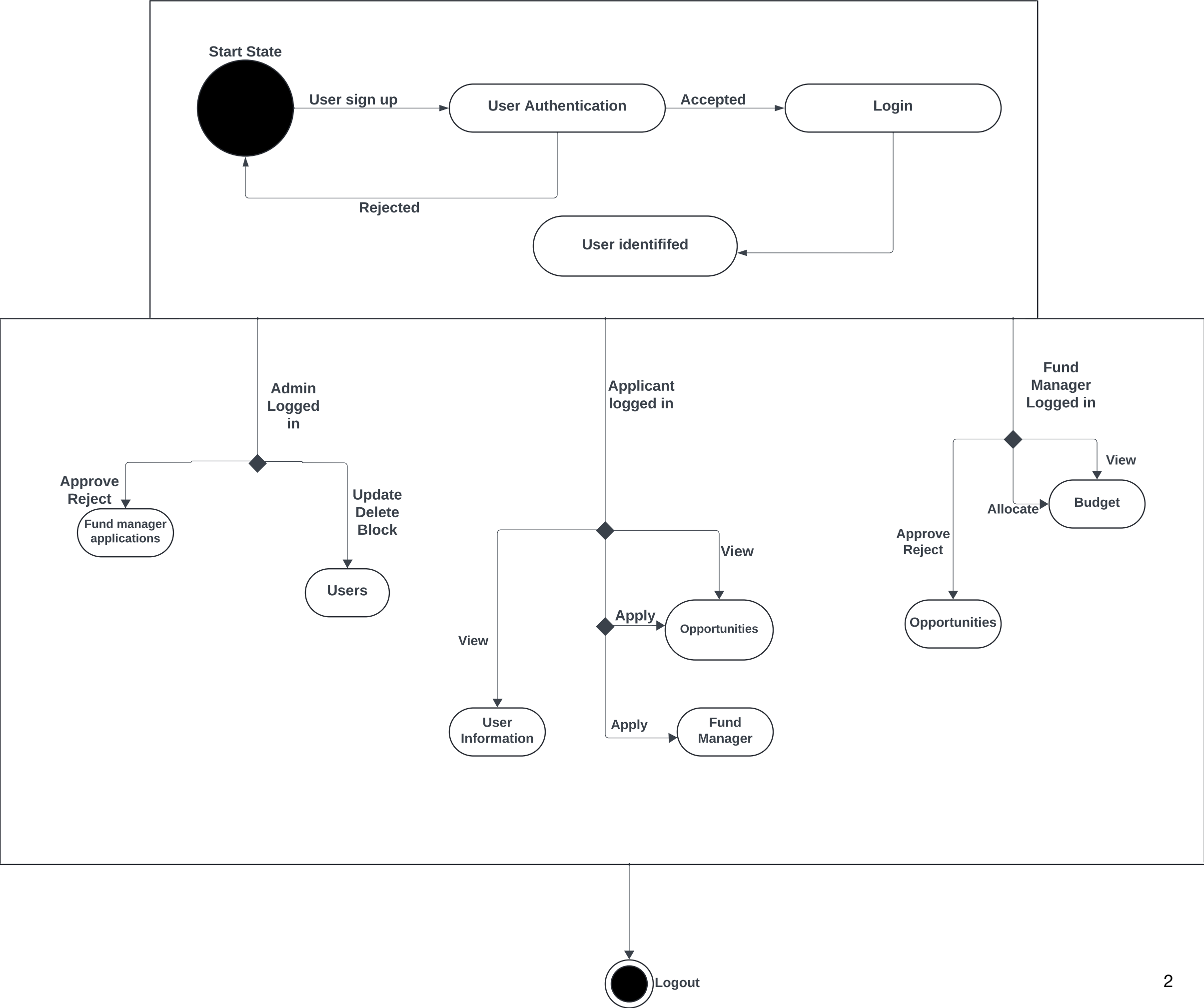NAFTALI DINER – 2144598

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Table of Contents

Logical View Class Diagram

Fund Manager

+manageApplications()
+allocateBudgets()
+reviewApplication()
+generateReports()

User

+ID: string
+Username: string
#Password: string
+Role: string
+Email: string
+ApplyToBeFundManager()
+Signup()
+Login()
+Logout()
#Authentication(ID, Auth0)

Notification

+ID: string
+Message: string
+Date: DateTime
+SendNotification()
+ViewNotification()

Admin

+approveFundManager(User: string): void
+deleteUser(User: string): void
+blockUser(User: string): void
+updateUser(User: string): void

Application

+ID: string
+FundingOpportunity: string
+Status: string
+Documents: FIle[ ]
+SubmitRequest()
+UpdateStatus()

FundingOpportunity

+ID: string
+Title: string
+Description: string
+FundManagerID: string
+Budget: float
+Status: string
+CreateFundingRequest()
+UpdateFundingRequest()
+DeleteFundingRequest()

1

Logical View State Diagram

Start State

User sign up → User Authentication — **Accepted** → Login

Rejected (returns to Start State)

User identifed

Admin Logged in
- **Approve Reject** → Fund manager applications
- **Update Delete Block** → Users

Applicant logged in
- **View** → User Information
- **View** → Opportunities
- **Apply** → Opportunities
- **Apply** → Fund Manager

Fund Manager Logged in
- **View** → Budget
- **Allocate** → Budget
- **Approve Reject** → Opportunities

Logout

2

Description View Component Diagram
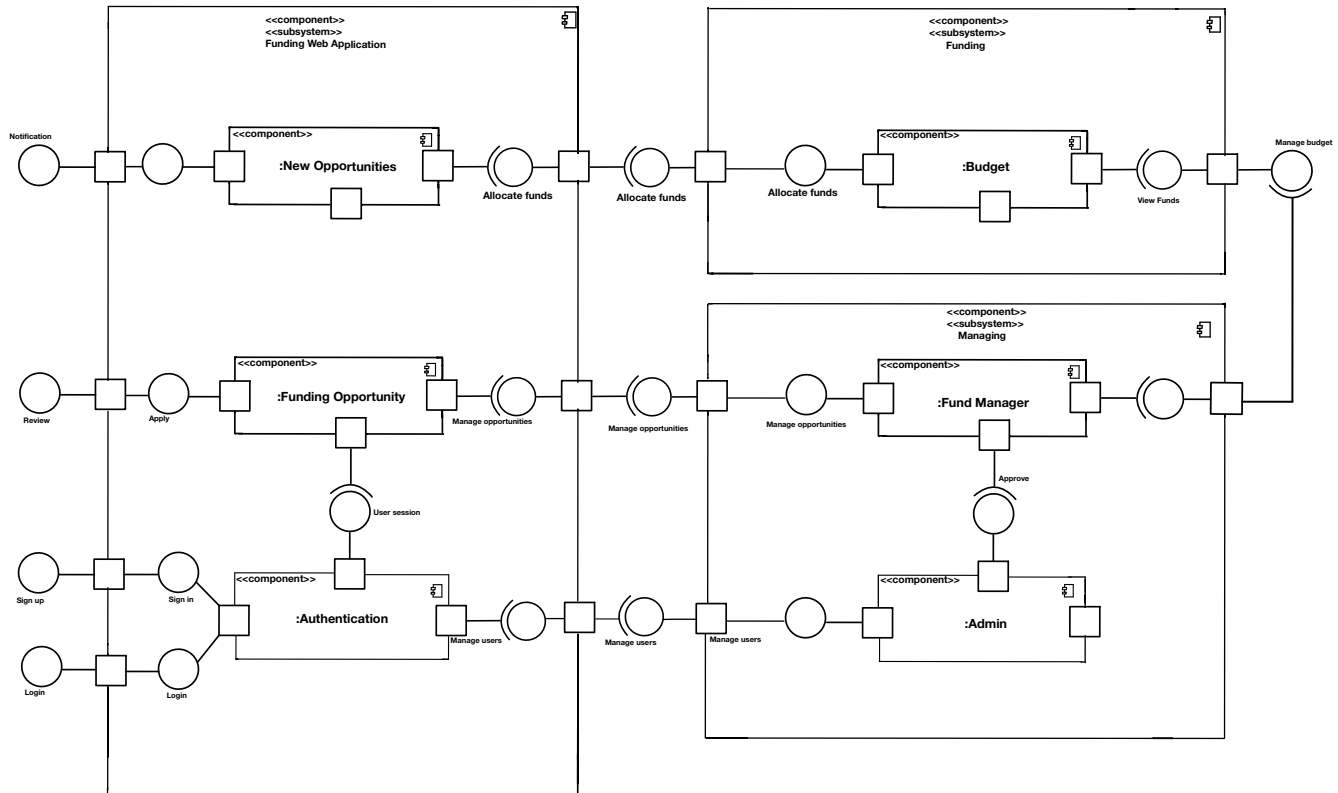
Process View Activity Diagram

4
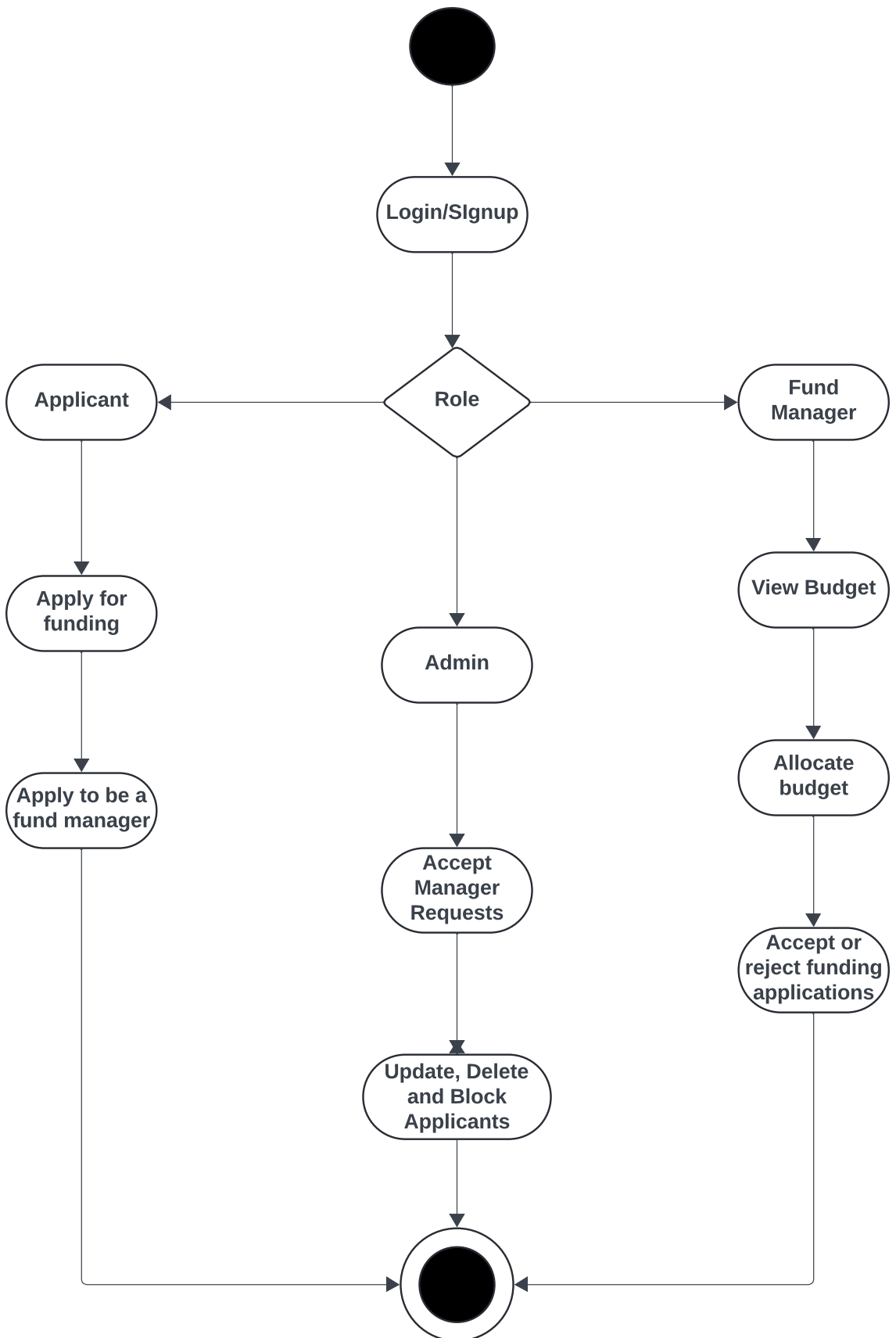
Process View Sequence Diagram

User	System	Fund Manager	Admin

User → System: Login/Signup

System → User

User → System: Submit application

System → Fund Manager: Forward Application

Fund Manager → Admin: Review Application

Admin → Fund Manager: Approve/Reject

Fund Manager → System: Notifiy Applicant

User → System: Logout

System → User: Confirm Logout

5
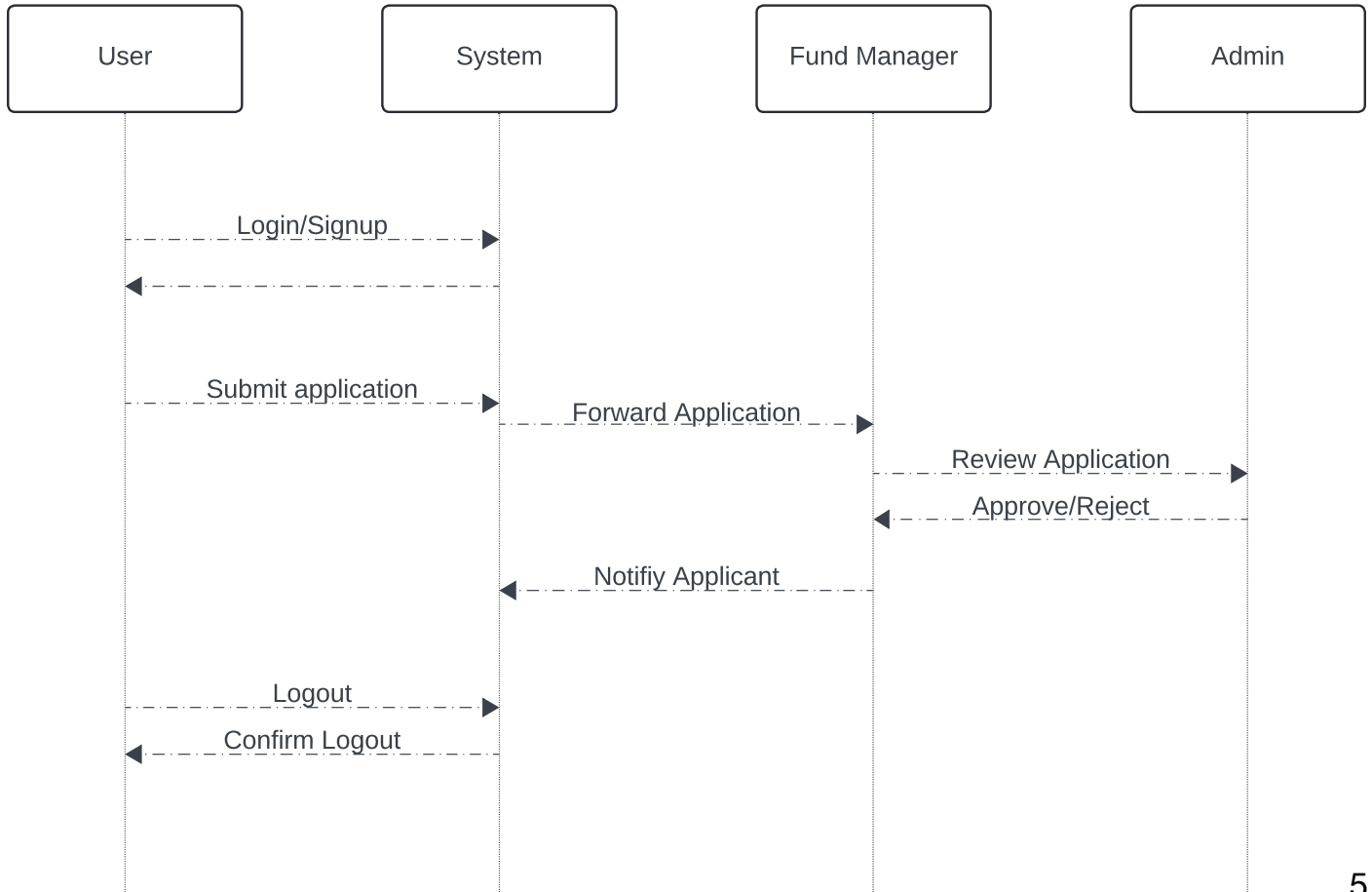
Physical View Deployment Diagram

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┌─────────────────────────┐
┆                         ┆
┆   Client Devices        ┆              ┌──────────────────────┐
┆                         ┆              │                      │
┆   Web browsers:         ┆─────────────▶│    Load Balancer     │
┆   (Chrome, Safari, Firefox)            │                      │
┆                         ┆              └──────────────────────┘
└─────────────────────────┘                         │
                                                     ▼
                                         ┌──────────────────────┐
                                         │     Web server:      │
                                         │       React.js       │
                                         │       Node.js        │
                                         └──────────────────────┘
                                                     │
                                                     ▼
                                         ┌──────────────────────┐
                                         │     App server:      │
                                         │   Microsoft Azure    │
                                         │   Node.js/Express    │
                                         │   Static web apps    │
                                         └──────────────────────┘
                                                     │
                                                     ▼
                                         ┌──────────────────────┐
                                         │      Database:       │
                                         │       MongoDB        │
                                         │ (User, Fund Manager, Admin,
                                         │   Application Details)
                                         └──────────────────────┘
```
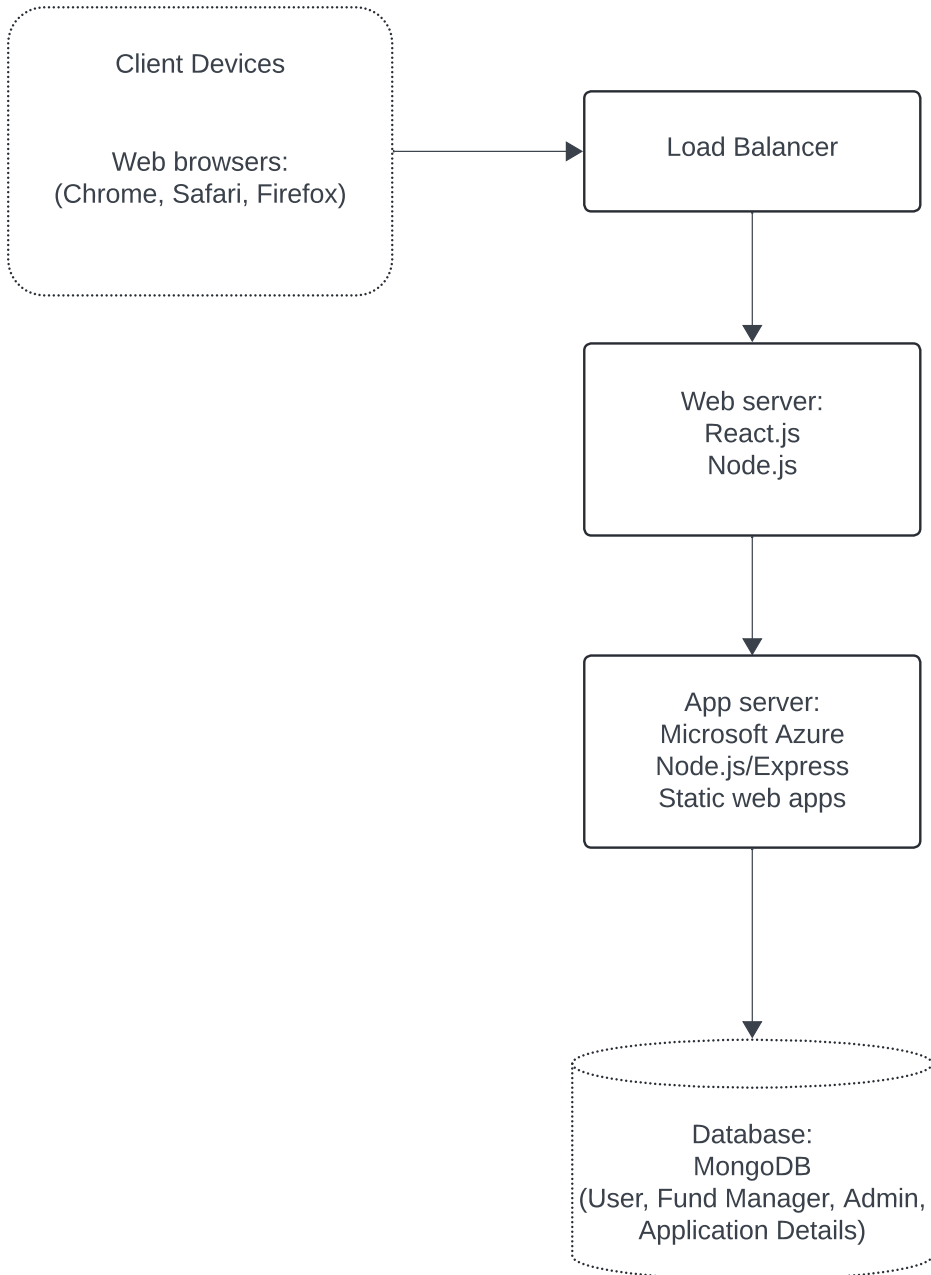
Scenario View Use Case Diagram

Applicant

- Login
- Submit application
- View Status
- Apply to be a fund manager

Fund Manager

- Login
- Review Application
- Approve Application
- View Funds
- Allocate funds to opportunities

Admin

- Login
- Accept/reject fund management applications
- Manage Users