**CheckInOut System Flowchart Documentation**

**1. Introduction**

The **CheckInOut System** is a mobile application designed to manage check-in/out transactions for **hostels, guesthouses, and mess facilities** in a college. The system provides role-based access to **students, staff, visitors, and admins**, ensuring streamlined operations for room allocation, mess check-ins, and guest management.

**2. Application Flowchart Overview**

The system is divided into two main sections:

1. **Users (Students, Staff, Visitors)**
2. **Admin**

Each section has specific functionalities tailored to the role of the user.

**3. User Flow**

**Home Page**

* Users select between **Users** and **Admin**
* Users include **Students, Staff, and Visitors**
* Authentication: **Register, Login, Forgot/Reset Password**
* Role-based access: Upon login, users are redirected to their **dashboard**

**User Dashboard**

**For Students**

* **Hostels:**
  + Check **room allotment details**
  + Check **hostel room availability** and view room details (capacity, facilities, status)
  + **Automatic room vacancy update**
  + View **personal check-in history**
* **Guesthouses:**
  + Check **guestroom availability** and view room details
  + **Request guestroom allotment** for parents or relatives
* **Mess:**
  + Check **mess allotment details**
  + Check **mess check-in history**

**For Staff**

* **Guesthouses:**
  + Check **guestroom availability** and view room details
  + **Request guestroom allotment** for parents or relatives

**For Visitors**

* **Guesthouses:**
  + Check **guestroom availability** and view room details
  + **ID card generation** for entry/exit (if allotted a guestroom)

**Profile Section (For Students, Staff, Visitors)**

* **Edit profile details**
* **Delete profile**
* **QR code generation** for inter/intra hostel mobility
  + **Students' QR codes are used for mess check-in/out**

**4. Admin Flow**

**Admin Dashboard**

Admins have access to manage and monitor **hostels, guesthouses, and mess facilities**.

**Hostels**

* **Manage student details** along with their **hostel rooms**
* **Allot/Deallot hostel rooms** to students
* **Monitor room vacancies** and generate reports

**Guesthouses**

* **Manage visitor details**
* **Allot/Deallot guest rooms** to visitors
* **Monitor room vacancies** and generate reports

**Mess**

* **Manage all mess details** along with students allotted to mess
* **Generate reports** on check-in/out (Daily, Weekly, Monthly)

**5. Conclusion**

This flowchart documentation serves as a **structural blueprint** for the CheckInOut System, ensuring **role-based access, smooth check-in/out processes, and efficient hostel, guesthouse, and mess management**. The system is designed to optimize administrative operations while providing seamless access to users.