

~~# Maintenance Manual for FRAS Firestore Database Scheduled Backups Data Reauthenticate account |~~
~~| **Render backend offline** | Outage or redeploy failure |~~
~~Restart service in Render Manual Redeploy |~~
~~| **Data not saving to Firestore** | Permission issue | Check Firestore rules and ensure project limits not exceeded. |~~
~~| **Pending records never finalize** | Possible task misfire |~~
~~Manually execute `attendanceDecisionQueue` and check logs. |~~
~~| **Frontend not loading** | Corrupted build | Rebuild (`npm run build`) and redeploy. |~~
~~| **Slow performance** | Increased traffic or unoptimized API | Profile queries; enable caching. |~~

~~## 5. Backup & Recovery Procedures~~

- ~~1. **Daily Complete Backup:** Export Firestore data~~
- ~~2. **Verification:** Confirm record count + hash match between backup and production.~~
- ~~3. **Restore Procedure:**~~
 - ~~— Import data into Firestore.~~
 - ~~— Validate schema.~~
 - ~~— Swap after confirmation.~~

~~## 6. Change Management Process~~

- ~~1. **Submit Change Request:** Document the modification's purpose and its impact.~~
- ~~2. **Approval:** Must be reviewed by Project Manager, Lead Developer, and Stakeholders.~~
- ~~3. **Testing:** Implement in development branch, run complete tests.~~
- ~~4. **Deployment:** Merge into `main`, conduct Render + Firebase redeploy.~~

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~~## 7. Appendices~~

~~### Appendix A-Deployment~~

~~#### Backend Web Service in Render.~~

~~2. Link GitHub repo (`/backend` directory).~~

~~3. Environment Firebase Hosting~~

~~```bash~~

~~npm run build~~

```
firebase deploy --only hosting  
...
```

~~### Appendix C Diagrams~~

~~! [Class~~

~~Diagram] (<https://github.com/bstep0/FRAS/blob/main/Revised%20Documentation%20For%20Implementation%20Phase/FRAS-ClassDiagram.png>)~~

~~! [Data Flow~~

~~Diagram] (<https://github.com/bstep0/FRAS/blob/main/Revised%20Documentation%20For%20Implementation%20Phase/FRAS-DFD.png>)~~

~~! [Entity Relationship~~

~~Diagram] (<https://github.com/bstep0/FRAS/blob/main/Revised%20Documentation%20For%20Implementation%20Phase/FRAS-ERD.png>)~~

~~! [Use Case~~

~~Diagram] (<https://github.com/bstep0/FRAS/blob/main/Revised%20Documentation%20For%20Implementation%20Phase/FRAS-ERD.png>)~~