

BTS



Snap Vision



Client- Naked Insurance
Demo 4

WHAT IS SNAP VISION?

**INDOOR
NAVIGATION**

**OUTDOOR
NAVIGATION**

**AR
NAVIGATION**



SNAP VISION WOW FACTORS

```
graph TD; Title[SNAP VISION WOW FACTORS] --- G[GAMIFICATION]; Title --- RC[REPORT CROWD]; Title --- SL[SHARE LOCATION]; Title --- TT[TIMETABLE]; Title --- RC2[REPORT CROWD];
```

GAMIFICATION

REPORT CROWD

SHARE LOCATION

TIMETABLE

REPORT CROWD

Live Demo



QUALITY REQUIREMENTS TESTING



SECURITY

PASS __tests__/security/firestore.rules.test.js (22.512 s)

Snap Vision Firestore Security Rules

User Data Isolation

- ✓ user can read/write their own users and recentlyVisited (4429 ms)
- ✓ user cannot read/write other users data (1295 ms)
- ✓ unauthenticated cannot read/write any user data (318 ms)

Role-Based Access Control

- ✓ admin can write to RoomPOIs, PathPOIs, UPcampusPOIs (552 ms)
- ✓ user cannot write to RoomPOIs, PathPOIs, UPcampusPOIs (416 ms)
- ✓ editor can write to assigned location roomPOIs (220 ms)

Crowd Reports

- ✓ user can create crowdReport (302 ms)
- ✓ user can update/delete their own report (612 ms)
- ✓ user cannot update/delete others report (644 ms)

AR Navigation Sessions

- ✓ user can read/write their own AR session (271 ms)
- ✓ user cannot read/write others AR session (253 ms)

Timetables

- ✓ user can read their own timetable (214 ms)
- ✓ user cannot read others timetable (200 ms)
- ✓ user can create timetable with correct fields (300 ms)
- ✓ user cannot create timetable for another user (265 ms)

Building POIs and Floorplans

- ✓ authenticated user can read buildingPOIs and floorplans (188 ms)
- ✓ editor can write buildingPOIs and floorplans for assigned location (331 ms)
- ✓ editor cannot write buildingPOIs for unassigned location (217 ms)
- ✓ editor can create/update/delete beacons for assigned location (296 ms)
- ✓ user can read beacons but cannot write (285 ms)

Path POIs

- ✓ authenticated user can read pathPOIs (171 ms)
- ✓ editor can write pathPOIs for assigned location (178 ms)
- ✓ editor cannot write pathPOIs for unassigned location (192 ms)

Path POIs

- ✓ authenticated user can read pathPOIs (149 ms)
- ✓ editor can write pathPOIs for assigned location (151 ms)
- ✓ editor cannot write pathPOIs for unassigned location (200 ms)

Floorplan Metadata

- ✓ authenticated user can read floorplanMetadata (178 ms)
- ✓ admin can write floorplanMetadata (151 ms)
- ✓ user cannot write floorplanMetadata (152 ms)

Location

- ✓ authenticated user can read location (144 ms)

QR Codes

- ✓ authenticated user can read qrCodes (127 ms)
- ✓ admin can write qrCodes (180 ms)
- ✓ user cannot write qrCodes (219 ms)

User Information

- ✓ user cannot create other userInformation (175 ms)
- ✓ user can read their own userInformation (137 ms)
- ✓ admin can update/delete any userInformation (153 ms)
- ✓ user cannot update/delete other userInformation (176 ms)

Test Suites: 1 passed, 1 total

Tests: 34 passed, 34 total

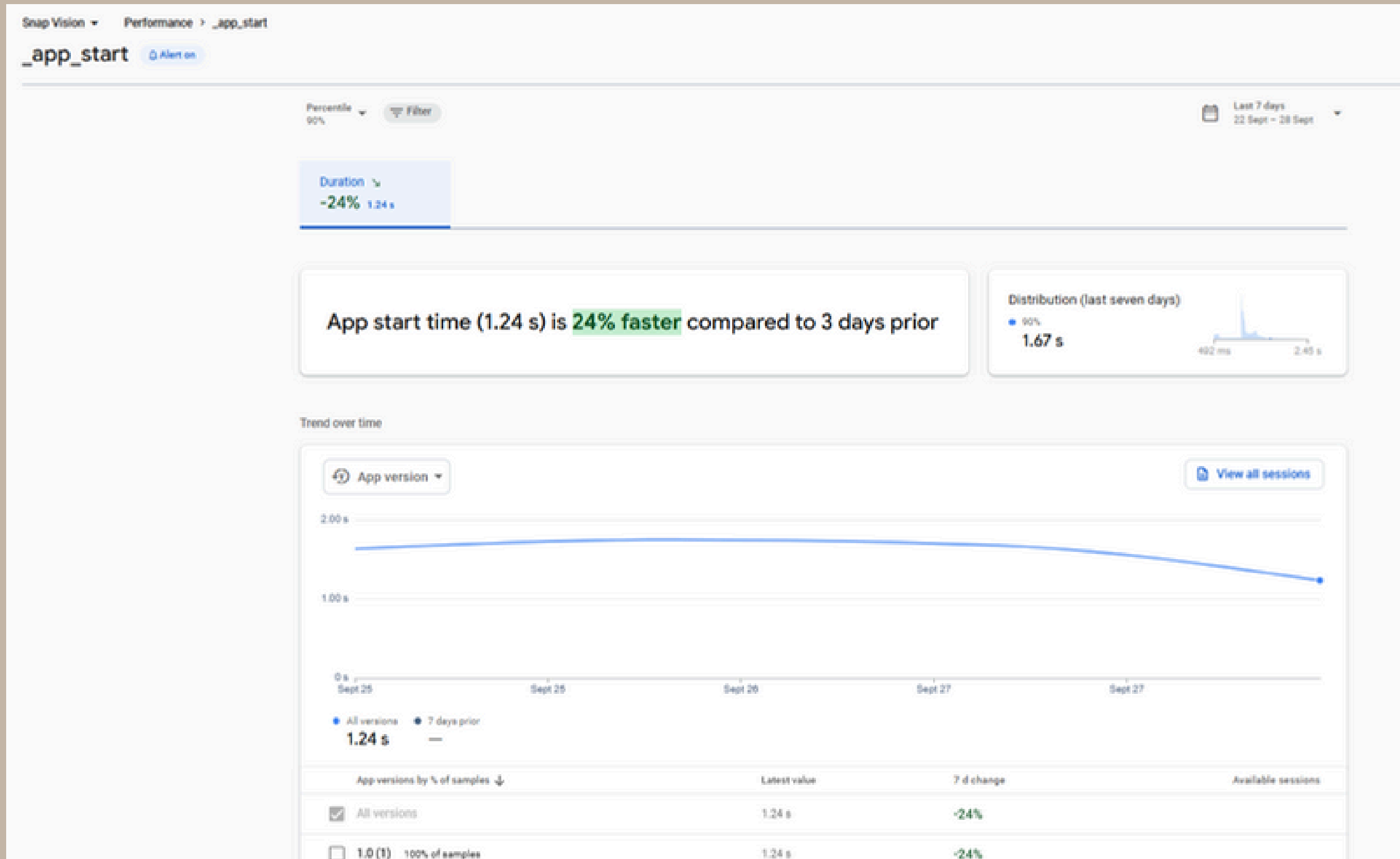
Snapshots: 0 total

Time: 18.448 s, estimated 23 s

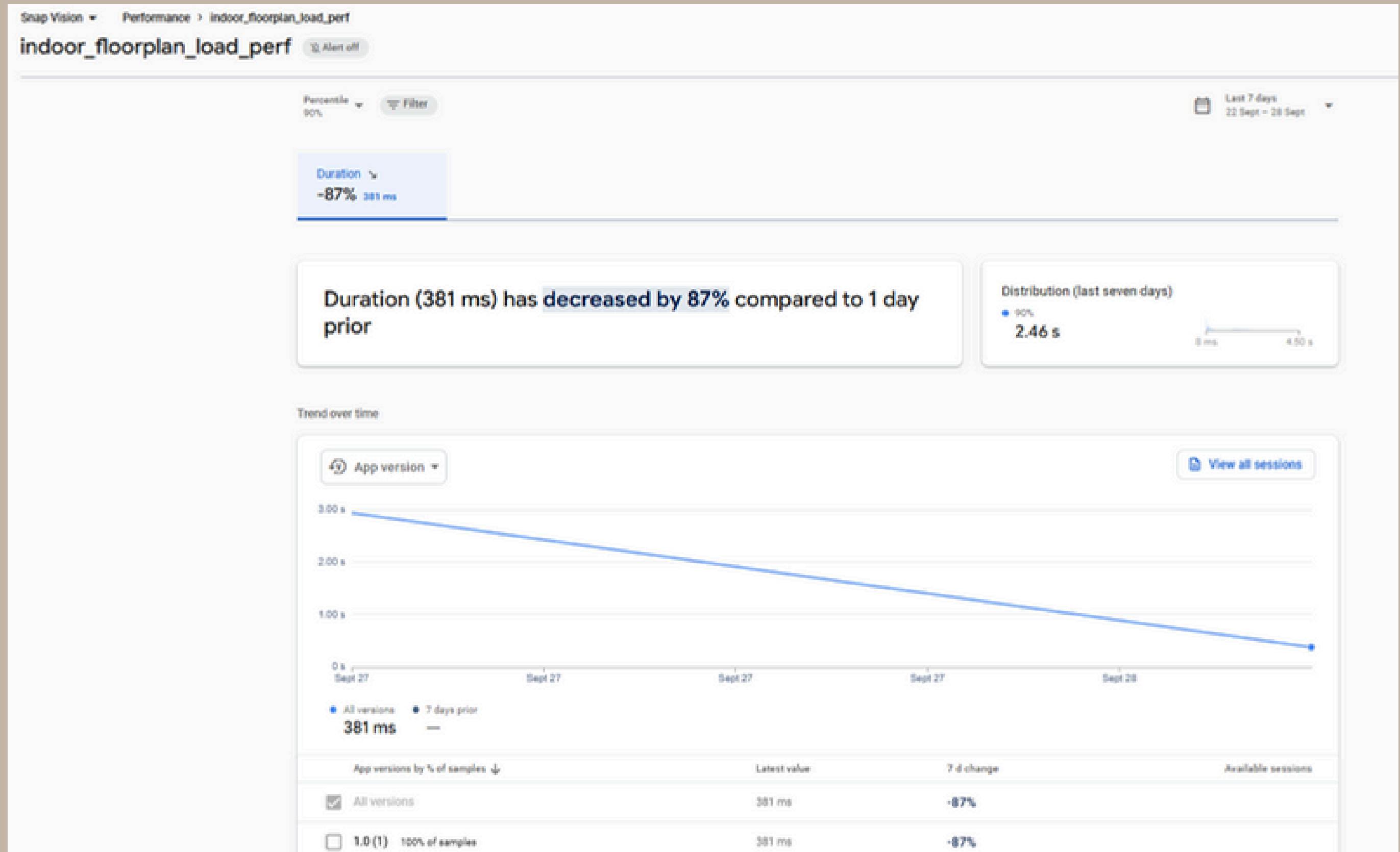
Ran all test suites matching firestore.rules.test.js.

sacoor@LAPTOP-E0ELCFK7:/mnt/c/Users/Saalihah Sacoor/Desktop/Snap-Vision/snap-vision-backend\$

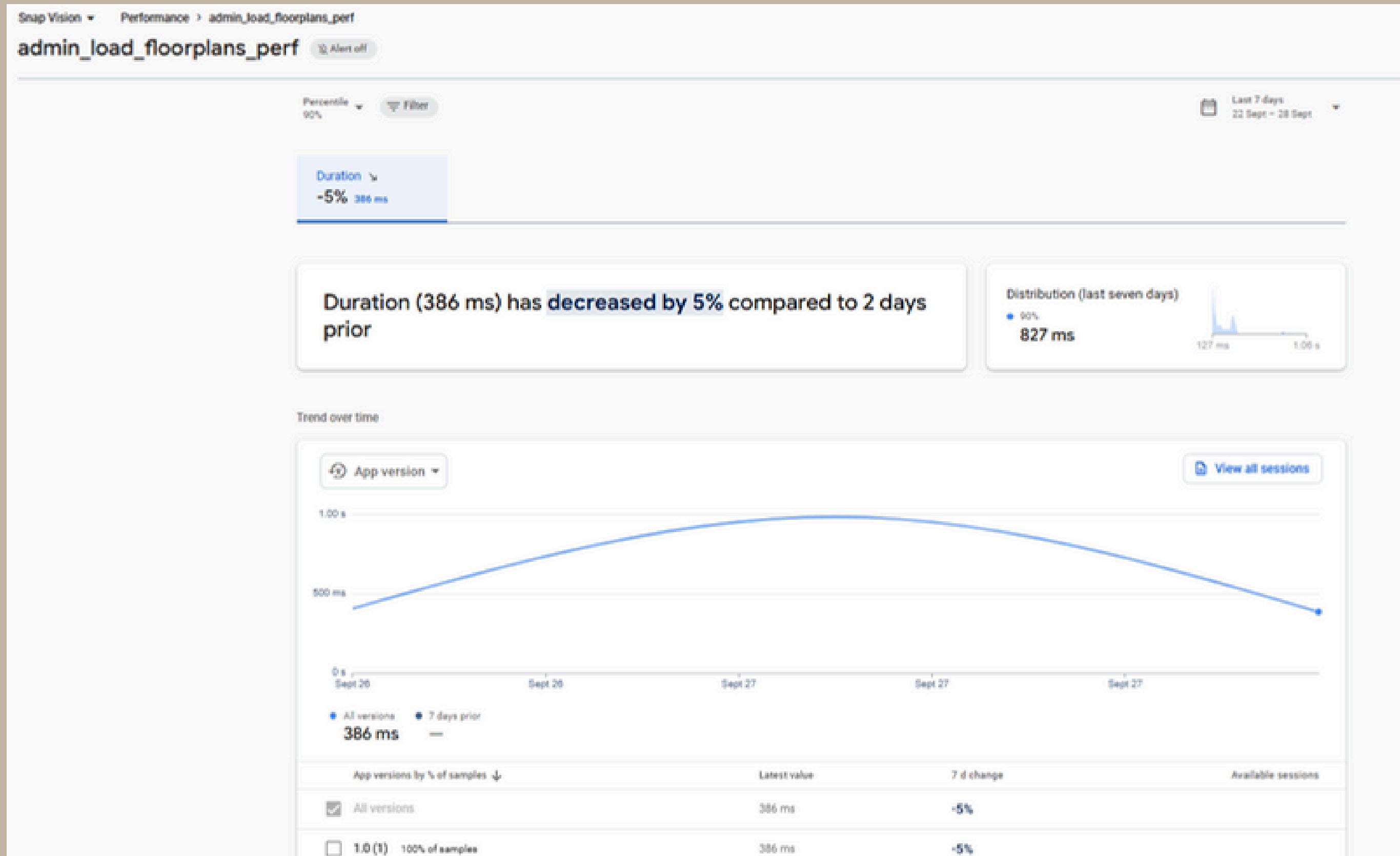
PERFORMANCE



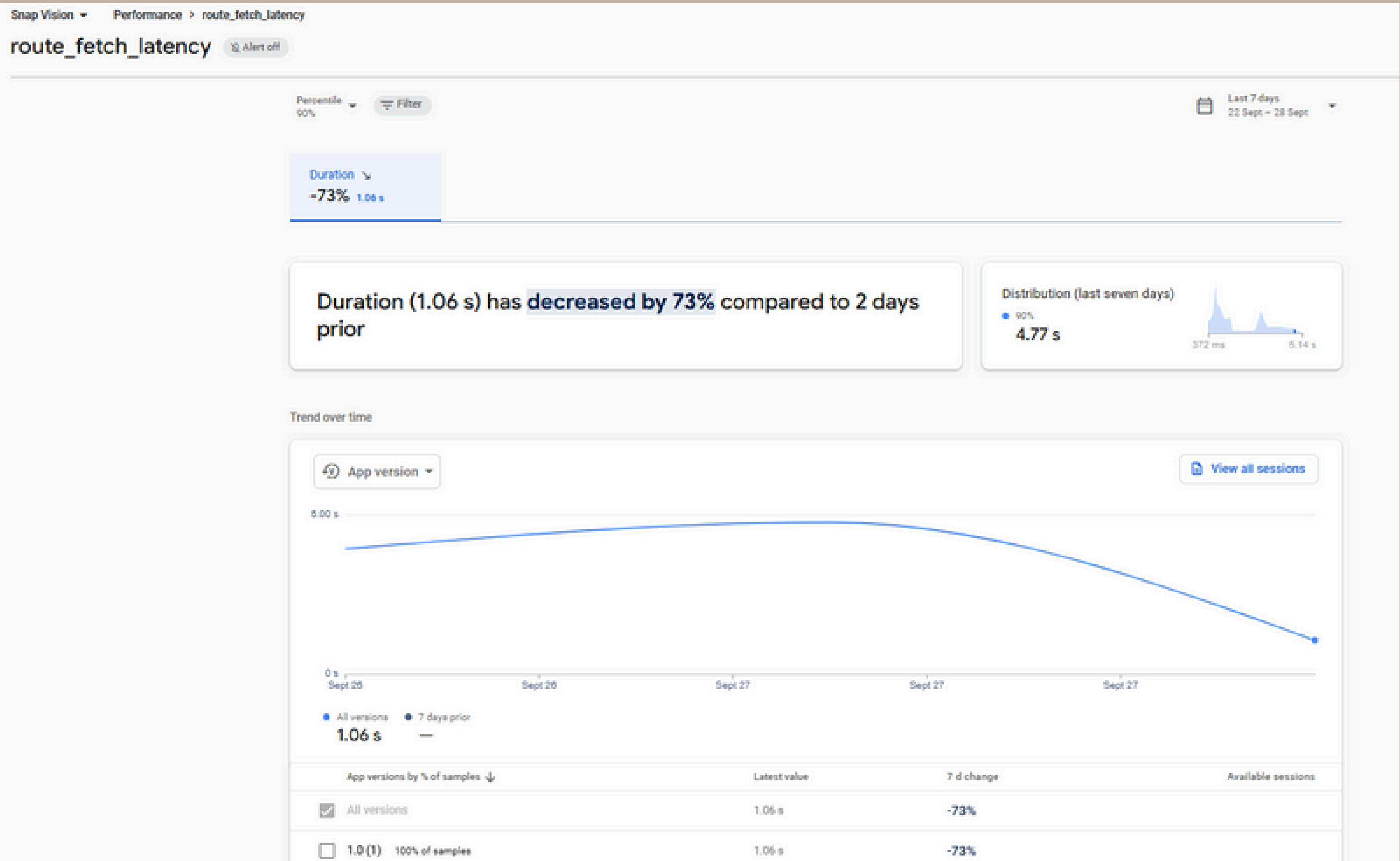
PERFORMANCE



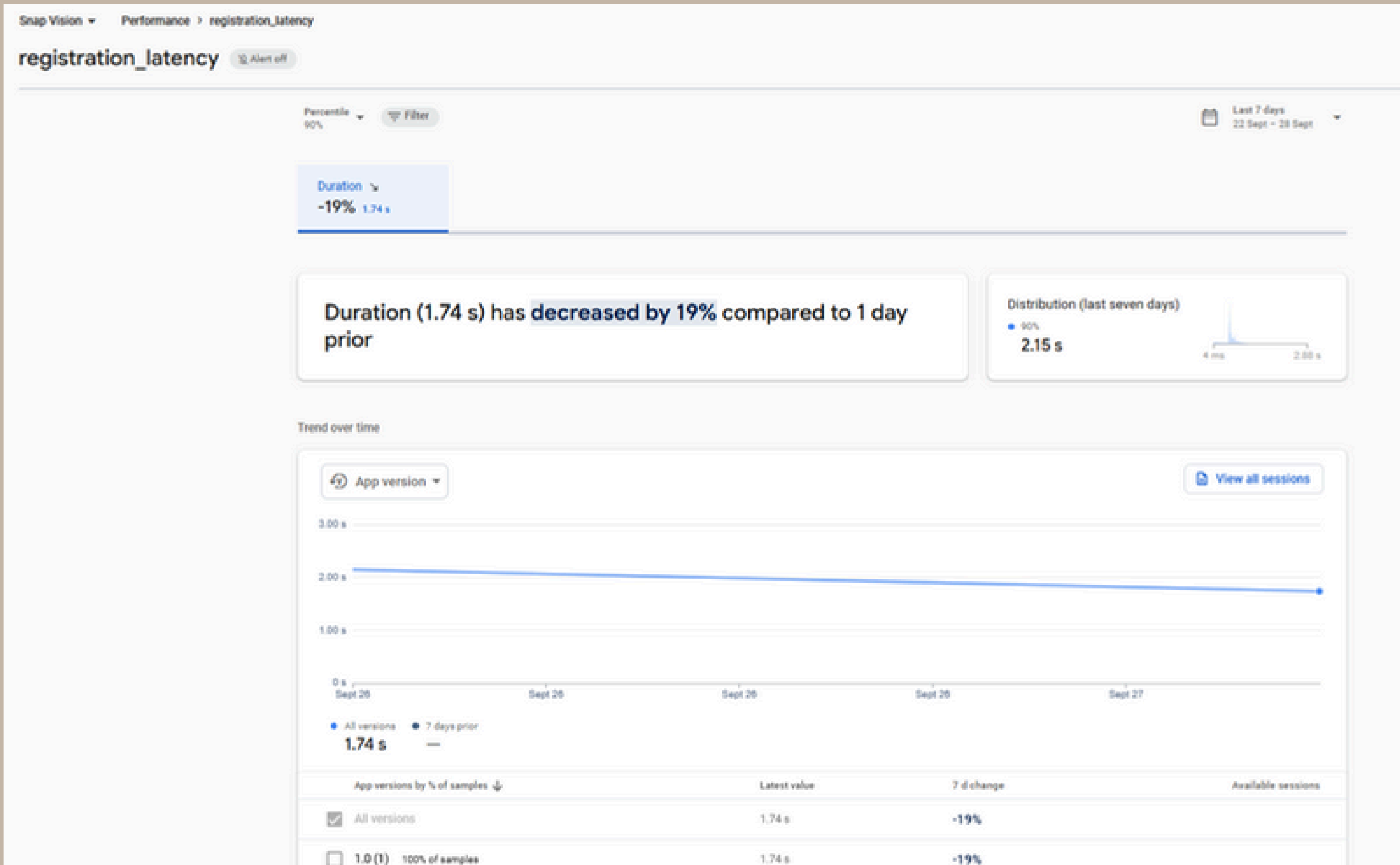
PERFORMANCE



LATENCY

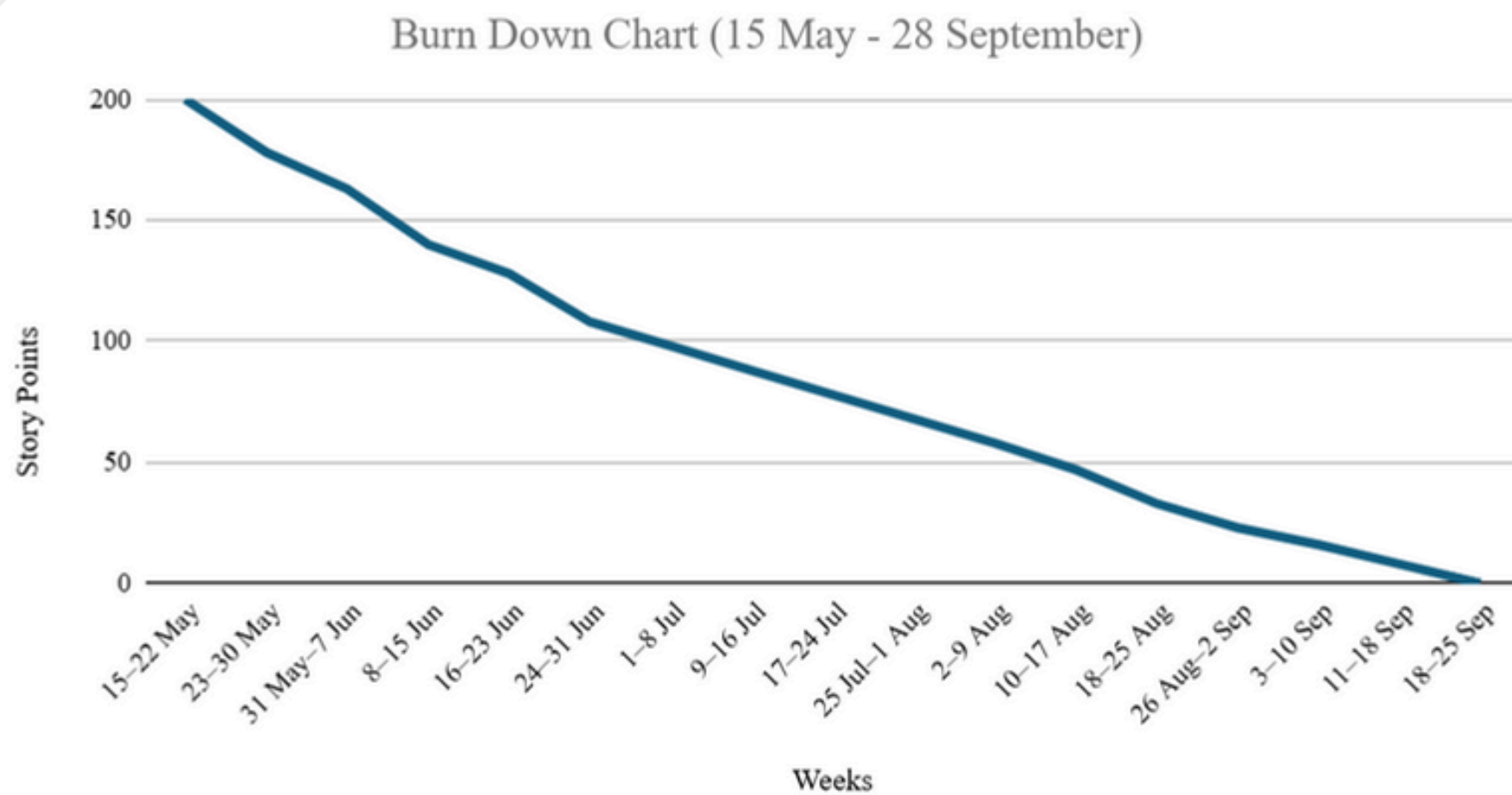


LATENCY

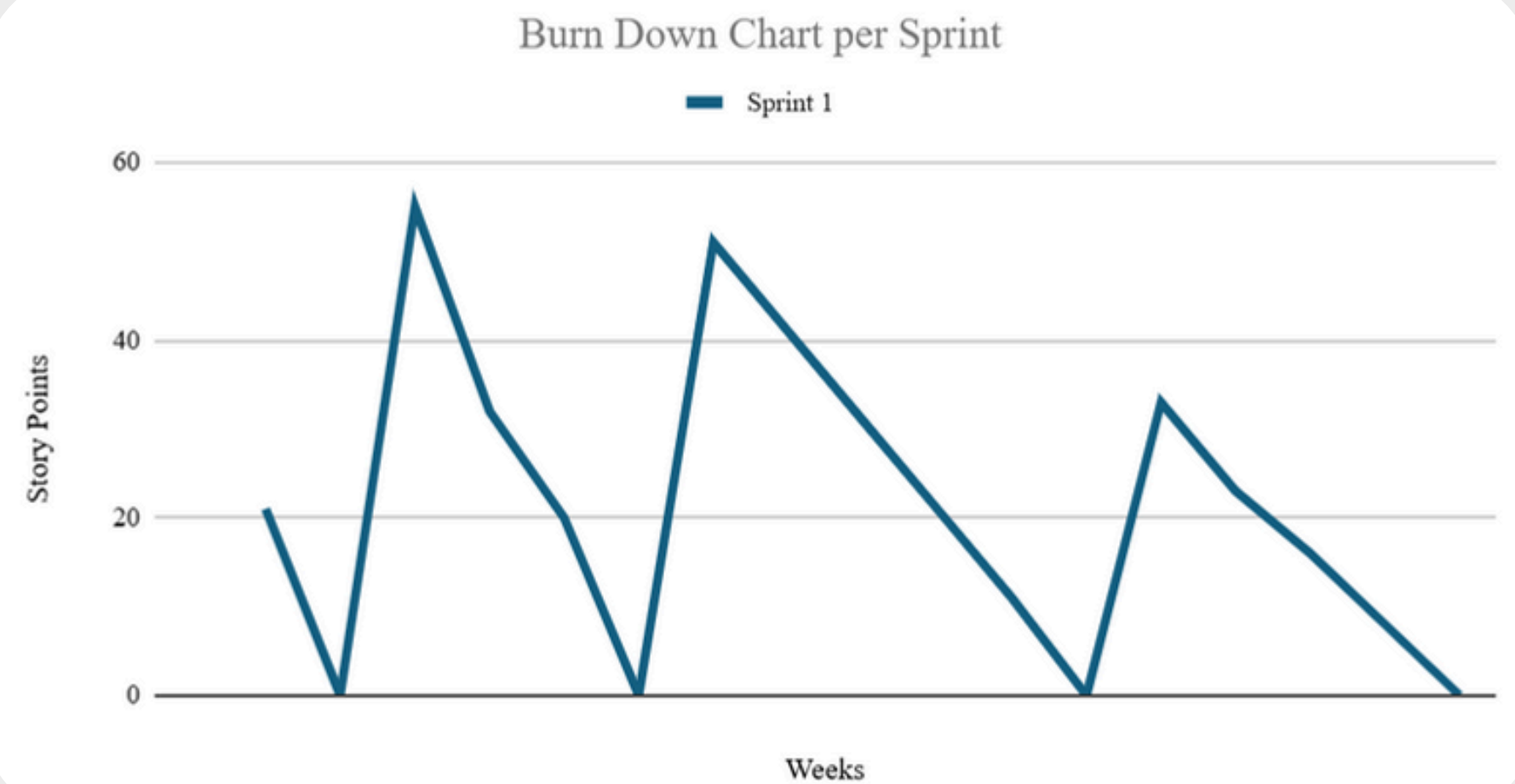


PROJECT MANAGEMENT

BURN DOWN CHART FOR PROJECT



BURN DOWN CHART PER SPRINT



FUNCTIONAL REQUIREMENTS TESTING



Testing

PASS `__tests__ / QRCodeList.test.tsx`

QRCodeList

- ✓ renders correctly with QR codes for selected floor (185 ms)
- ✓ shows empty state when no QR codes match the selected floor (12 ms)
- ✓ renders Add New button (17 ms)
- ✓ calls onAddQR when Add New button is pressed (10 ms)
- ✓ calls onViewQR when View button is pressed on a QR code item (9 ms)
- ✓ calls onDeleteQR when Delete button is pressed on a QR code item (9 ms)
- ✓ handles string comparison correctly for floor filtering (8 ms)

PASS `__tests__ / QRCodePreviewModal.test.tsx`

QRCodePreviewModal

- ✓ renders correctly when visible (487 ms)
- ✓ does not render when not visible (8 ms)
- ✓ uses default empty space when qrValue is empty (3 ms)
- ✓ calls onClose when Close button is pressed (5 ms)
- ✓ truncates long QR values in the display (7 ms)
- ✓ handles onRequestClose modal prop (4 ms)

PASS `__tests__ / integration / QRCodeAdmin.integration.test.tsx`

QRCodeAdminContent Integration

- ✓ loads and displays locations (329 ms)
- ✓ completes the full selection flow: location -> building -> floor (78 ms)
- ✓ displays error when location loading fails (119 ms)
- ✓ displays QR codes when location, building, and floor are selected (208 ms)
- ✓ shows QR code add modal when add button is pressed
- ✓ handles QR code deletion
- ✓ creates a QR code successfully (1 ms)

PASS `__tests__ / QRCodeAddModal.test.tsx`

QRCodeAddModal

- ✓ renders correctly when visible (296 ms)
- ✓ does not render when not visible (14 ms)
- ✓ calls onRoomSelect when a room is selected (14 ms)
- ✓ updates search query when text is entered (7 ms)
- ✓ calls onQrValueChange when QR value is entered (9 ms)
- ✓ calls onGenerateQR when Generate button is pressed (9 ms)
- ✓ calls onQrDescriptionChange when description is entered (8 ms)
- ✓ calls onAdd when Add button is pressed (12 ms)
- ✓ calls onClose when Cancel button is pressed (6 ms)
- ✓ displays selected room correctly (9 ms)
- ✓ passes correct props to child components (7 ms)

Backend Tests

```
PASS __tests__/unit/index.unit.test.js
index.js (unit)
  ✓ GET / → 200 with running message (67 ms)
  GET /api/directions
    ✓ returns 400 if start or end missing (13 ms)
    ✓ calls axios and returns geojson on success (8 ms)
    ✓ returns 500 if axios throws (15 ms)
```

```
PASS __tests__/integration/index.integration.test.js
index.js (integration)
  ✓ GET / → 200 (96 ms)
  ✓ GET /api/directions success → returns data (15 ms)
  ✓ GET /api/directions bad request → 400 (8 ms)
  ✓ GET /api/directions axios failure → 500 (23 ms)
```

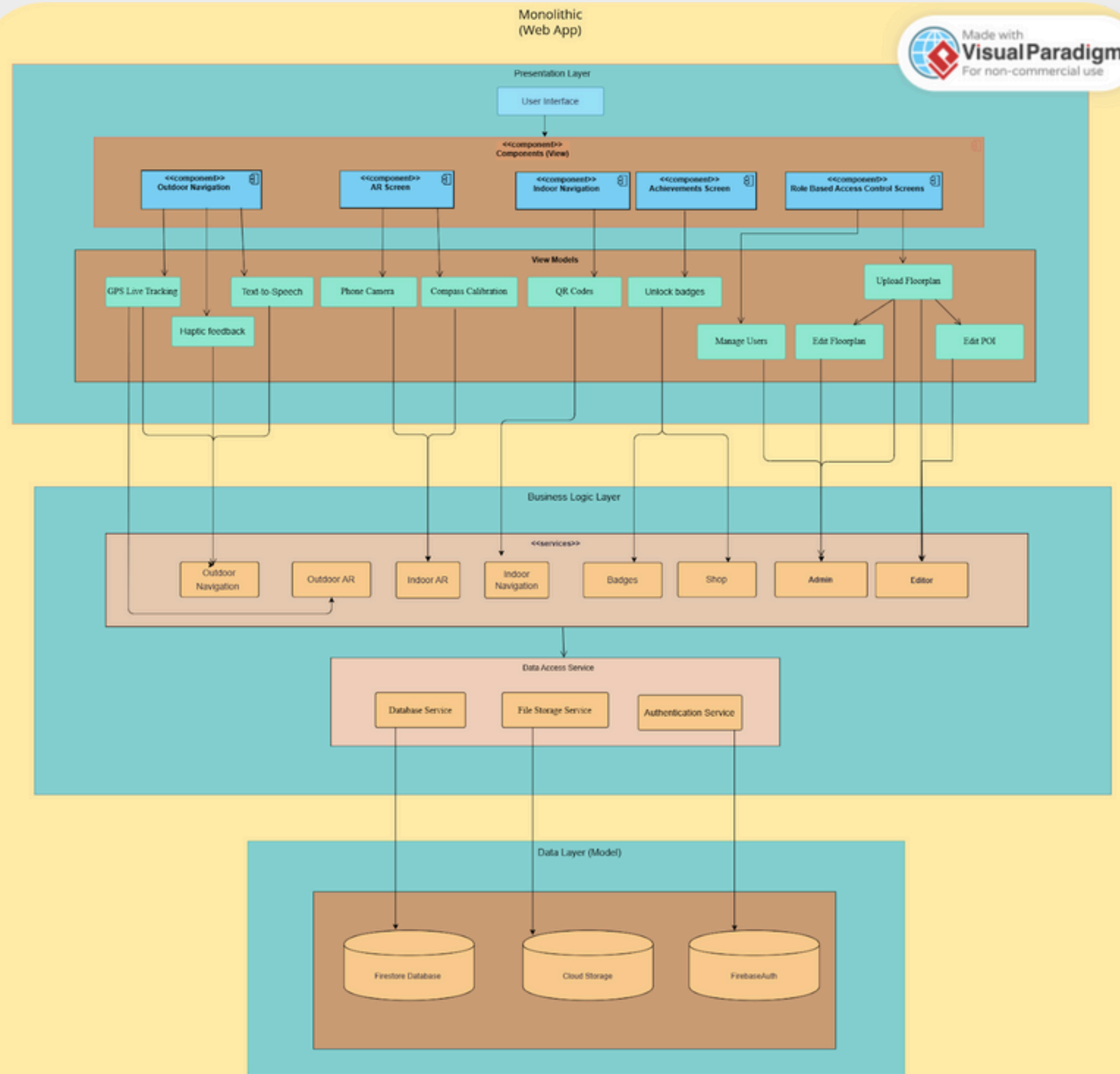
Coverage

File	% Stmts	% Branch	% Funcs	% Lines
All files	91.92	78.53	94.36	92.71
components/organisms	92.73	78.79	93.8	93.79
ARNavigationOverlay.tsx	85.51	64.86	86.84	87.95
AccessibilitySettingsContent.tsx	82.35	100	75	82.35
AccountSettingsContent.tsx	100	100	100	100
AchievementsContent.tsx	100	100	100	100
AchievementsForm.tsx	100	100	100	100
AdminContent.tsx	100	100	100	100
AdminEditFloorplansContent.tsx	96.66	87.5	100	100
AdminFloorplanUploadFlow.tsx	100	90	100	100
AdminLoadFloorplansContent.tsx	85.41	78.94	87.5	85.1
AppPreferencesContent.tsx	100	100	100	100
BadgeUnlockNotifier.tsx	93.75	100	83.33	92.85
ContactSupportContent.tsx	100	100	100	100
DirectionsModal.tsx	100	100	100	100
EditorContent.tsx	100	100	100	100
FAQContent.tsx	100	100	100	100
FloorplanSelectionFlow.tsx	100	93.75	100	100
HomeContent.tsx	92	83.33	66.66	91.66
IndoorSchematicMap.tsx	98.83	68.31	100	98.78
LandingOverlay.tsx	100	100	100	100
LoginForm.tsx	96.15	86.11	100	95.91
MapContent.tsx	95.45	90	94.11	100

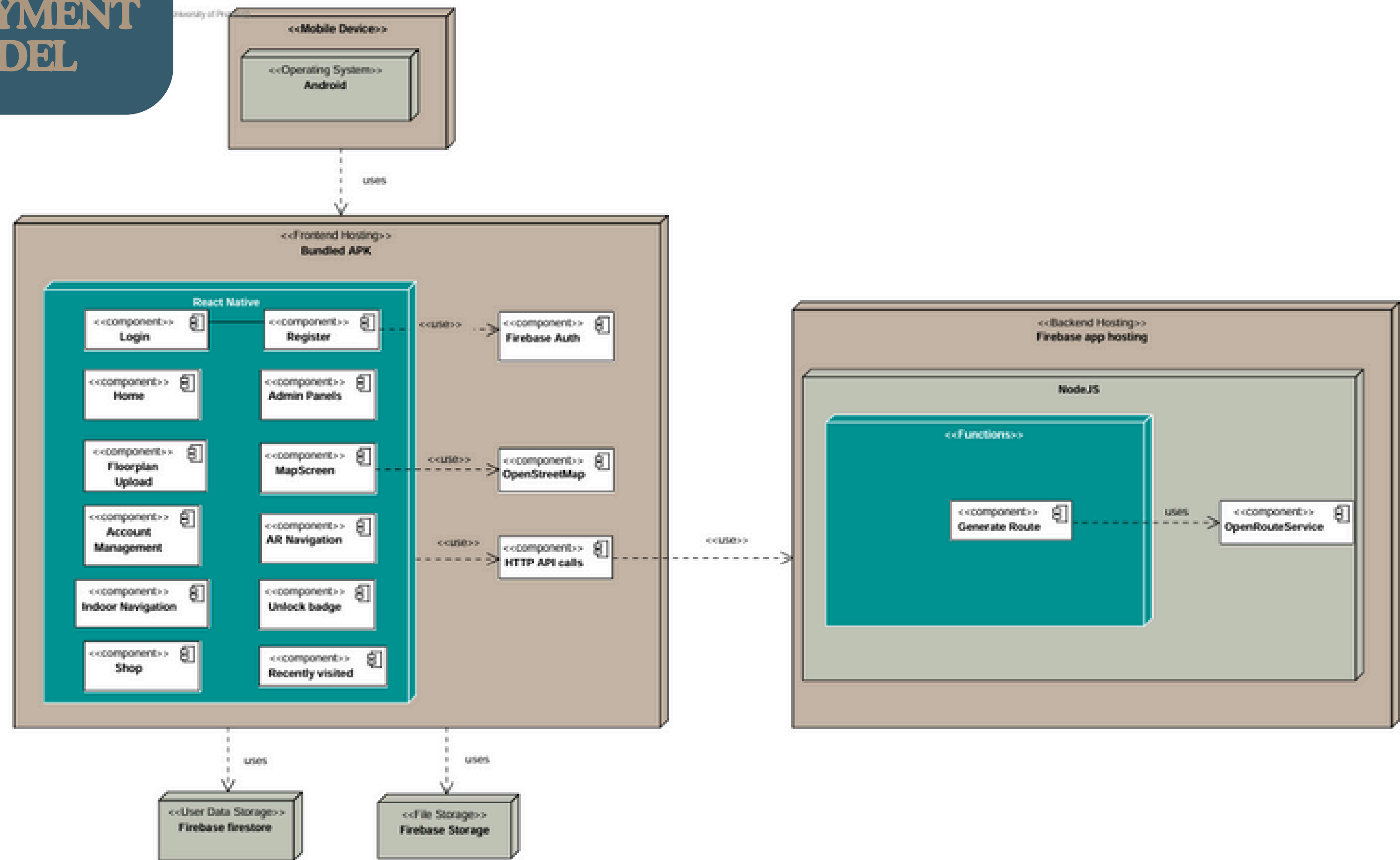
MapWebView.tsx	100	100	100	100
NavigationPanel.tsx	88.46	92.53	100	95.83
NotificationSettingsContent.tsx	100	100	100	100
PrivacySecurityContent.tsx	100	100	100	100
QRCodeAddModal.tsx	100	100	100	100
QRCodeAdminContent.tsx	90.9	100	85.71	90.9
QRCodeList.tsx	100	87.5	100	100
QRCodePreviewModal.tsx	100	100	100	100
RegisterForm.tsx	92.22	84.84	100	91.66
SettingsContent.tsx	100	100	100	100
SupportContent.tsx	90.9	100	83.33	90.9
TutorialContent.tsx	100	100	100	100
hooks	100	84.78	100	100
useQRCodeAdmin.ts	100	84.78	100	100
services	90.5	79.26	87.75	90.48
TimetableBackgroundService.ts	90.98	74.32	81.81	90.59
badgeService.ts	82.47	73.52	81.81	83.15
qrService.ts	94.47	86.53	100	94.35
services/firebase	89.85	70.83	100	89.7
recentlyVService.ts	90.9	70	100	90.74
uploadService.ts	85.71	75	100	85.71
utils	89.1	77.77	98.38	90.42
FloorplanManager.tsx	97.36	100	93.75	97.22
cameraPermissions.ts	100	100	100	100
floorplanUtils.ts	100	87.5	100	100
navigationUtils.ts	86.46	76.3	100	87.96

Test Suites: 57 passed, 57 total
 Tests: 862 passed, 862 total
 Snapshots: 0 total
 Time: 126.397 s
 Ran all test suites.

ARCHITECTURAL DIAGRAM



DEPLOYMENT MODEL



Questions

