⌖ UI Flow & Screen Design Blueprint for Online Exam Proctoring iOS App

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👤🎓 1. Student Role

Goal:

To securely log in, view scheduled exams, take exams under AI proctoring, and view results with detailed feedback.

⬚ Overall Flow

```
Face ID Login → Dashboard → Exam List → Exam Details → Pre-Exam Checks → Exam
Interface
→ AI Proctoring (Camera + Mic) → Cheating Alerts → Submit → Results &
Feedback
```

📱 Screens for Student

Screen	Description	Key UI Elements
1. Face ID Login / Verification	Biometric login using Face ID for secure access.	- Face ID animation - "Verify Identity" button - Option: "Use password instead"
2. Student Dashboard	Overview of upcoming, ongoing, and past exams.	- Welcome message - Sections: *Upcoming*, *Ongoing*, *Completed* - Notification bell icon - "View Schedule" button
3. Exam Schedule / Subject List	Exams grouped by subject or category.	- Subject cards (e.g., "Maths", "English") - Each card → list of exams with date/time/status - Countdown timer for upcoming exams
4. Exam Details	Details before starting the exam.	- Exam name, course, duration, total marks - Live countdown till start time - "Start Exam" button (disabled until start)

5. Pre-Exam Checks & Instructions	System test before exam starts.	- Check camera, mic, internet, and permission status (✓ indicators) - Display rules (no phone, no talking, etc.) - Checkbox: "I agree to the exam terms" - "Begin Exam" button
6. Exam Interface (Main Exam Screen)	Student attempts exam under AI monitoring.	- Question text & options - Speech-to-text button (for spoken answers) - Live timer + progress bar (questions completed / total) - "Next" and "Previous" buttons - Camera preview (top-right) - Microphone icon (active when listening)
7. AI Proctoring Layer (Invisible to Student)	Runs in background.	- Eye movement detection (CoreML / Vision) - Face detection, object detection (YOLO/CoreML) - Audio noise analysis
8. Cheating Alerts (Real-time)	Notifications shown if suspicious behavior detected.	- Modal pop-ups: "Multiple faces detected", "Please look at the screen", "Background voice detected" - Warning counter
9. Exam Submission Screen	Confirmation and upload of proctoring data.	- "Submit Exam" button - Progress indicator: uploading logs/video - "Thank You" message
10. Exam Results & Feedback	Display marks, correct answers, and teacher feedback.	- Score summary (e.g., "85/100") - Correct answers highlighted - Feedback comments from teacher - "Download Report" button

☐ Student Navigation Tabs (Persistent Bottom Bar)

Tab	Description
🏠 Dashboard	Upcoming exams overview
📚 My Exams	Subject-wise list
📊 Results	Scores and feedback
🔔 Notifications	Alerts for cheating, schedules, announcements
👤 Profile	Edit profile, privacy settings, Face ID setup

👨‍🏫 2. Teacher Role

Goal:

To create, edit, schedule, and manage exams, and monitor students during live exams with AI-assisted proctoring data.

⬚ Overall Flow

```
Login → Teacher Dashboard → Create Exam → Assign to Course/Students → Live
Monitoring
→ Real-Time Cheating Alerts → View Reports → Student Performance & Logs
```

▤ Screens for Teacher

Screen	Description	Key UI Elements
1. Login / Verification	Secure login (email/password or institutional login).	- Input fields - "Forgot password" - "Continue" button
2. Teacher Dashboard	Overview of teaching load and exams.	- Stats cards: *Active Exams*, *Pending Reports*, *Students Monitored* - "Create Exam" and "View Reports" buttons
3. Create Exam Screen	Teachers can create or edit exams.	- Input fields: *Exam Title*, *Subject*, *Duration*, *Total Marks* - Add questions (MCQs / descriptive) - Enable AI proctoring toggle - "Save & Schedule" button
4. Assign Exam to Students	Assign exam to course or specific student groups.	- Dropdowns: *Course*, *Batch*, *Section* - Student list with checkboxes - "Assign Exam" button
5. Manage Exams	View, edit, delete, or duplicate exams.	- List view of all exams with status (Active/Completed) - Edit/Delete icons
6. Live Monitoring Dashboard	Real-time student proctoring view.	- Grid layout: Each student tile shows name, live thumbnail from camera feed - AI alerts (colored icons per student) - "View Full Screen" or "Pause Exam" buttons
7. Cheating Alerts Panel	List of flagged events.	- Table of violations (student name, type, time) - Filters (date/time/type)
8. Reports & Analytics	Summary of exams and proctoring results.	- Charts: Average marks, violations rate - "Download Report" or "Export CSV"

9. Student Activity Logs	View detailed AI logs for each student.	- Timestamps, screenshots, audio snippets, and AI confidence score
10. Notifications Center	Receive real-time alerts for cheating events.	- Push-style alerts within app - "View Event" → redirects to monitoring dashboard

☐ Teacher Navigation Tabs (Bottom or Side Navigation)

Tab	Description
⌂ **Dashboard**	Quick stats & ongoing exams
☰ **Exams**	Create, edit, assign
◉ **Monitor**	Real-time proctoring view
▥ **Reports**	Exam results & violation analytics
⚙ **Profile**	Settings, logout

👤💼 3. Admin Role

Goal:

To manage users (teachers/students), allocate courses, control exam system settings, and oversee AI system performance.

☐ Overall Flow

```
Admin Login → Dashboard → Manage Users → Manage Courses/Exams → System
Settings → Logs & Reports
```

▤ Screens for Admin

| Screen	Description	Key UI Elements
1. Admin Login	Secure admin access.	- Email/password fields - MFA (Multi-factor Authentication) option
2. Admin Dashboard	System-wide overview.	- Total users, total exams, AI alerts summary, uptime metrics - Graphs: Active vs Completed Exams

3. User Management	Add, edit, or delete users.	- Tabs: *Students*, *Teachers*, *Admins* - Add User form (name, email, role) - "Assign Role" dropdown
4. Course Management	Assign teachers to courses.	- Course list view - Dropdown: Select teacher - "Assign" button
5. Exam Management	View all exams across system.	- Filters: Date, subject, teacher - "Force Stop" or "Archive" options
6. System Settings	Configure AI and security settings.	- Toggles: Eye detection sensitivity, voice detection threshold - Data retention period, privacy options
7. System Logs & Reports	Access AI logs, audit trails, and user activity.	- Search by user/date - Export audit log button
8. Notifications Panel	Manage system-wide announcements.	- Create announcement - Push to all users or selected roles

▢ Admin Navigation Tabs

Tab	Description
⌂ **Dashboard**	System overview
⚇ **Users**	Manage students & teachers
⚏ **Courses/Exams**	Manage exams and course allocations
⚙ **Settings**	Configure AI & privacy
⥮ **Reports**	Logs and analytics

▢ AI/Proctoring System (Integrated, Not Separate UI)

The **AI features** work *behind the scenes*, but you can include subtle indicators or admin/teacher dashboards to visualize detections.

Feature	Function	Visible UI?
👀 **Eye Movement Tracking**	Detect gaze direction and frequency of looking away	No (teacher sees alert)
▢▢▢ **Multiple Face Detection**	Detect if another person enters frame	Warning pop-up on student screen + alert on teacher dashboard
▯ **Object Detection (Phone)**	Identify phones or books using YOLO/CoreML	Teacher receives "Phone detected" alert

✏️ **Audio Monitoring**	Detect voices or noises	Popup for student ("Background voice detected") + log entry for teacher
🌐 **Browser Activity Tracking**	Detect tab switch or minimize	Teacher dashboard alert
📄 **Screen Recording/Screenshot**	Record frames or capture evidence	Teacher/admin access only
🔔 **Notification System**	Alert all relevant parties in real-time	Push notifications and logs

🗺️ App Flow Summary Diagram (Text Representation)

```
[Login/Face ID]
       ↓
 ┌──────────────────────────────────────────────┐
 │    Role Detection (Student / Teacher / Admin)  │ │
 └──────────────────────────────────────────────┘
       ↓
 ┌──────────────┬──────────────┬──────────────┐
 │   Student    │   Teacher    │    Admin     │
 └──────────────┴──────────────┴──────────────┘

       ↓                ↓                ↓
View Exams        Create Exam      Manage Users
Attempt Exam      Assign Exam      Assign Courses
AI Proctoring     Live Monitor     Manage Exams
Receive Alerts    View Reports     Configure AI
View Results      Receive Alerts   Audit Logs
```
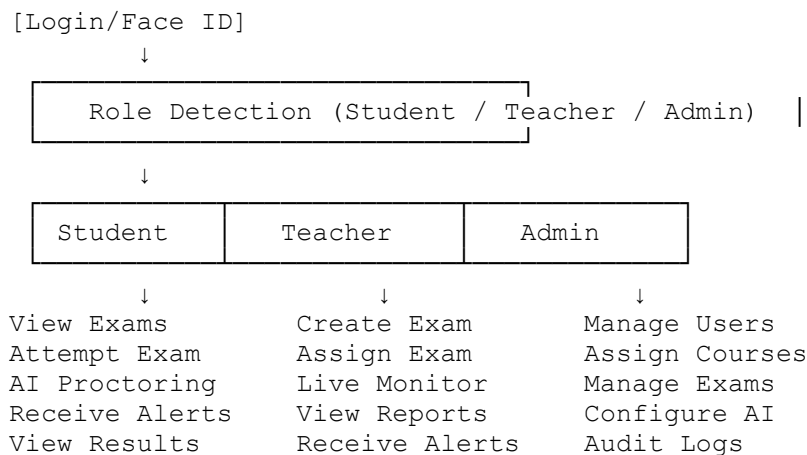
🎨 Next Step: UI Mockups

For your **FYP UI design in Figma/XD**, you should create **3 design sets** (one per role):

🎓 Student Set (8–10 screens)

1. Face ID Login
2. Dashboard
3. Exam Schedule
4. Exam Details
5. Pre-Exam Check
6. Exam Screen (with timer, question progress, camera feed)
7. Cheating Alert Popup
8. Exam Submission
9. Results & Feedback

👤💼 Teacher Set (7–9 screens)

1. Login
2. Dashboard
3. Create Exam
4. Assign Exam
5. Live Monitoring
6. Alerts Panel
7. Reports / Logs
8. Student Report Detail

👤💼 Admin Set (6–8 screens)

1. Admin Login
2. Dashboard
3. User Management
4. Course Management
5. Exam Management
6. Settings
7. Logs & Reports