EduConnect: Intelligent Student Success & Alumni Engagement Platform

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Phase 9: Reporting, Dashboards & Security Review

Overview:
This final phase implements comprehensive reporting and analytics capabilities, creates interactive dashboards for stakeholders, and conducts a thorough security review to ensure the EduConnect platform meets all operational and compliance requirements.

📊 Reports (Tabular, Summary, Matrix, Joined)

1.What they are:
Structured data views that present information in various formats for analysis, decision-making, and compliance reporting.

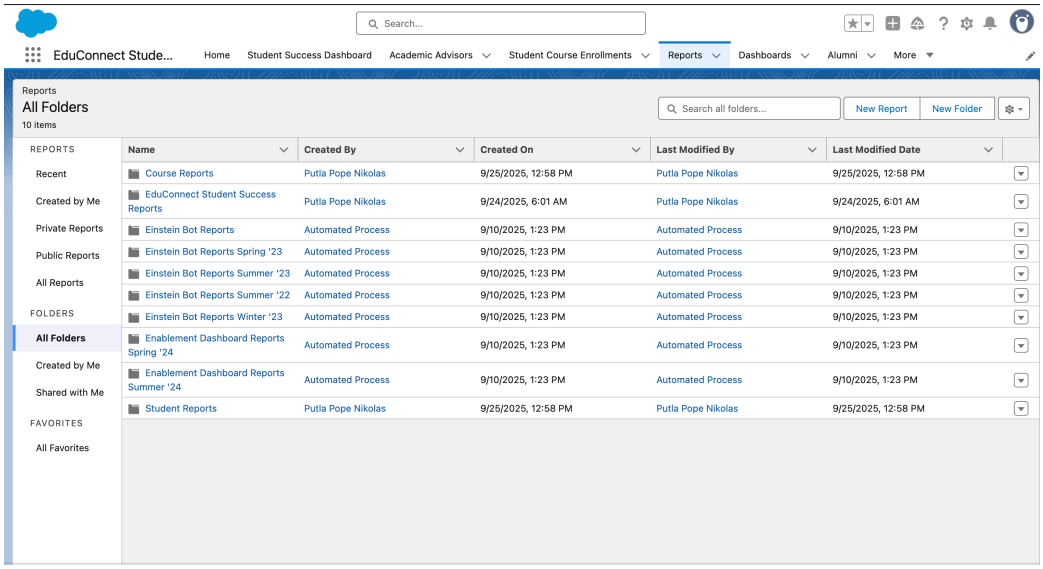
2.Report Types Implemented:

Tabular Reports:

- Simple Student Roster Report
- Course Enrollment List
- Summary Reports
- Student Performance by Academic Status
- Matrix Reports
- Student Performance by Department and Semester
- Course Capacity Analysis
- Joined Reports
- Student Success Comprehensive Report
- Faculty Workload Analysis

Report Automation:

How to navigate:
1. **Reports Tab** → **New Report** → Select report type
2. **Report Builder** → Add fields, filters, and groupings
3. **Reports** → **All Reports** → View existing reports
4. **Dashboard** → Add reports to dashboards for visualization



📈 Report Types

1.What they are:
Metadata definitions that determine which objects and fields are available for reporting.

2.Custom Report Types Created:

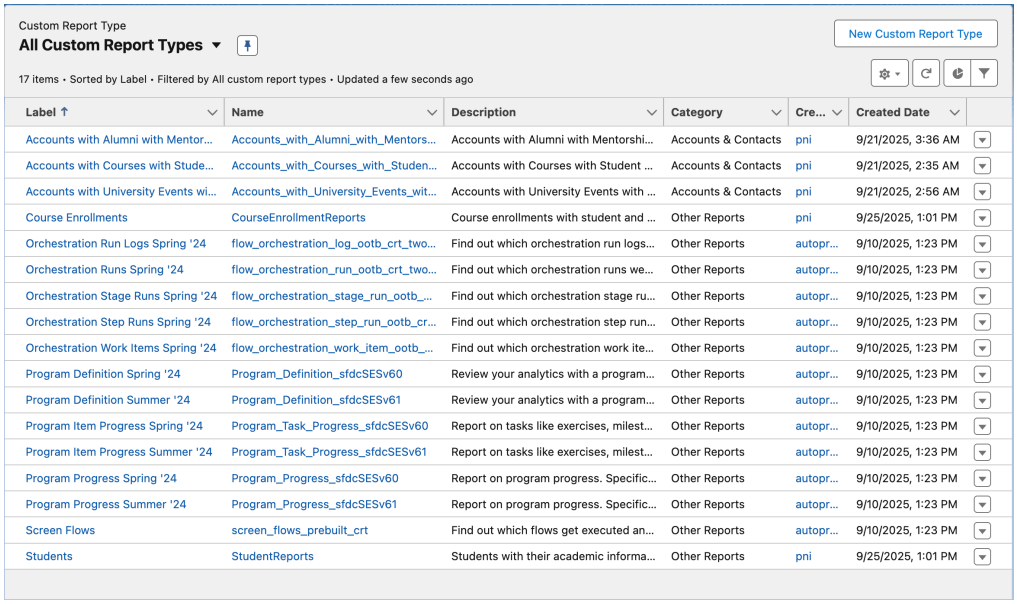
Students with Interventions

Use Cases: Academic support reporting, intervention effectiveness analysis

- Course Performance Analysis

Financial Aid Impact

How to navigate:
1. **Setup** → **Report Types** → **New Custom Report Type**
2. Select primary object and define relationships
3. Configure available fields and sections
4. ****Deploy**** → Make available to report builders



Label	Name	Description	Category	Cre...	Created Date
Accounts with Alumni with Mentor...	Accounts_with_Alumni_with_Mentors...	Accounts with Alumni with Mentorshi...	Accounts & Contacts	pni	9/21/2025, 3:36 AM
Accounts with Courses with Stude...	Accounts_with_Courses_with_Studen...	Accounts with Courses with Student ...	Accounts & Contacts	pni	9/21/2025, 2:35 AM
Accounts with University Events wi...	Accounts_with_University_Events_wit...	Accounts with University Events with ...	Accounts & Contacts	pni	9/21/2025, 2:56 AM
Course Enrollments	CourseEnrollmentReports	Course enrollments with student and ...	Other Reports	pni	9/25/2025, 1:01 PM
Orchestration Run Logs Spring '24	flow_orchestration_log_ootb_crt_two...	Find out which orchestration run logs...	Other Reports	autopr...	9/10/2025, 1:23 PM
Orchestration Runs Spring '24	flow_orchestration_run_ootb_crt_two...	Find out which orchestration runs we...	Other Reports	autopr...	9/10/2025, 1:23 PM
Orchestration Stage Runs Spring '24	flow_orchestration_stage_run_ootb_...	Find out which orchestration stage ru...	Other Reports	autopr...	9/10/2025, 1:23 PM
Orchestration Step Runs Spring '24	flow_orchestration_step_run_ootb_cr...	Find out which orchestration step run...	Other Reports	autopr...	9/10/2025, 1:23 PM
Orchestration Work Items Spring '24	flow_orchestration_work_item_ootb_...	Find out which orchestration work ite...	Other Reports	autopr...	9/10/2025, 1:23 PM
Program Definition Spring '24	Program_Definition_sfdcSESv60	Review your analytics with a program...	Other Reports	autopr...	9/10/2025, 1:23 PM
Program Definition Summer '24	Program_Definition_sfdcSESv61	Review your analytics with a program...	Other Reports	autopr...	9/10/2025, 1:23 PM
Program Item Progress Spring '24	Program_Task_Progress_sfdcSESv60	Report on tasks like exercises, milest...	Other Reports	autopr...	9/10/2025, 1:23 PM
Program Item Progress Summer '24	Program_Task_Progress_sfdcSESv61	Report on tasks like exercises, milest...	Other Reports	autopr...	9/10/2025, 1:23 PM
Program Progress Spring '24	Program_Progress_sfdcSESv60	Report on program progress. Specific...	Other Reports	autopr...	9/10/2025, 1:23 PM
Program Progress Summer '24	Program_Progress_sfdcSESv61	Report on program progress. Specific...	Other Reports	autopr...	9/10/2025, 1:23 PM
Screen Flows	screen_flows_prebuilt_crt	Find out which flows get executed an...	Other Reports	autopr...	9/10/2025, 1:23 PM
Students	StudentReports	Students with their academic informa...	Other Reports	pni	9/25/2025, 1:01 PM

📊 Dashboards:

1.What they are:

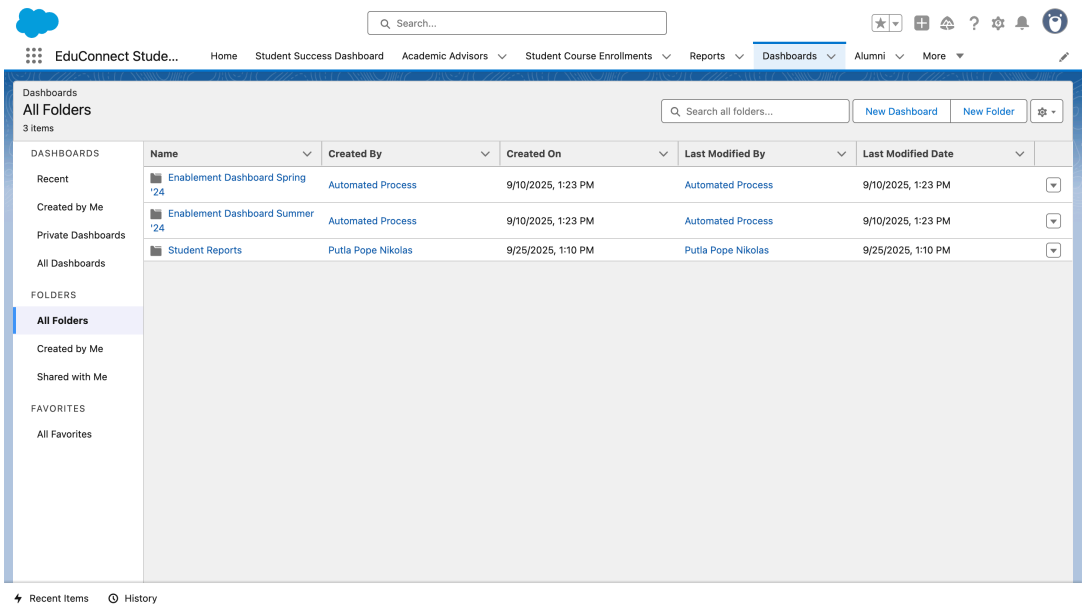
Visual displays that combine multiple reports and charts to provide at-a-glance insights into key metrics.

2.Dashboards Created:

- Executive Student Success Dashboard
-
- Faculty Performance Dashboard
-
- Student Services Dashboard
-
- Dynamic Dashboard Implementation

3.How to navigate:

1. **Dashboards Tab** → **New Dashboard** → Select dashboard type
2. **Dashboard Builder** → Drag and drop components
3. **Edit Dashboard** → Configure component data sources and filters
4. **Dashboard Settings** → Set refresh schedule and sharing options



🎛️ Dynamic Dashboards

1.What they are:
Dashboards that display data relative to the viewing user, providing personalized views of information based on user context.

2.Dynamic Dashboard Implementations:

- Personal Student Portfolio Dashboard
- Department Performance Dashboard
- Role-Based Security Dashboard

- **Executive Dashboard**: Runs as System Administrator (sees all data)
- **Faculty Dashboard**: Runs as current user (personalized data)
- **Student Services Dashboard**: Runs as designated service user (department data)

3.How to navigate:
1. **Dashboard Settings** → **Properties** → **Running User**
2. Select **"Run as logged-in user"** for dynamic behavior
3. ****View As**** → Test dashboard from different user perspectives
4. ****Security**** → ****Sharing Settings**** → Configure dashboard access

🔒 Sharing Settings

1.What they are:
Configurations that control record-level access and data visibility across the organization.

2.Sharing Settings Implemented:

Organization-Wide Defaults Review:

Object | OWD Setting | Justification

---|---|---
Student__c | Private | FERPA compliance - sensitive student data
Course__c | Public Read Only | Faculty need course visibility
Enrollment__c | Private | Sensitive academic records
Intervention__c | Private | Confidential support information
Assessment__c | Private | Protect assessment data
Event__c | Public Read Only | Campus events generally visible
User | Private | Personal information protection
Contact | Private | External contact privacy

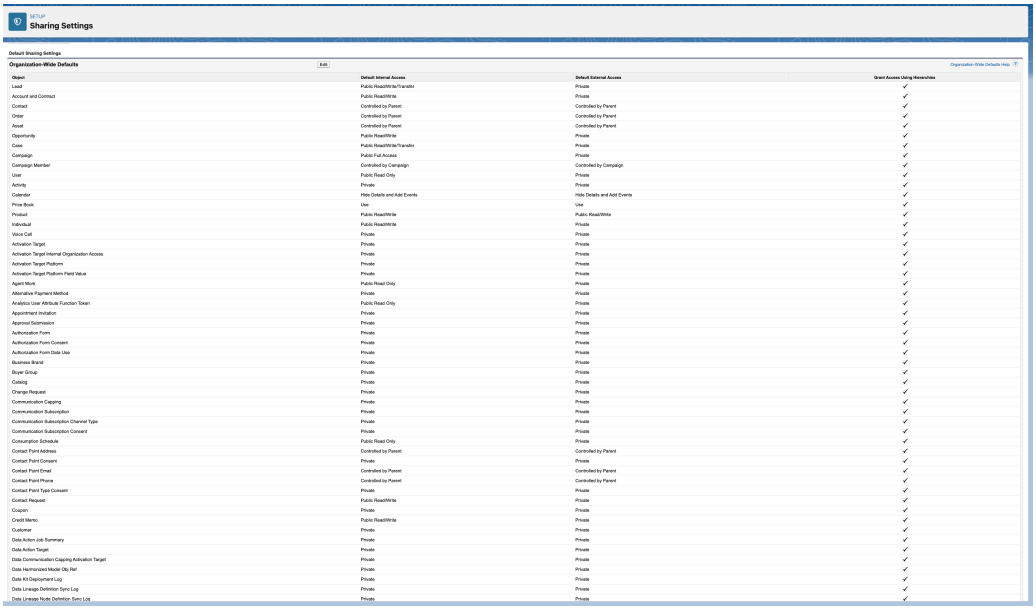
3.Sharing Rules Configuration:

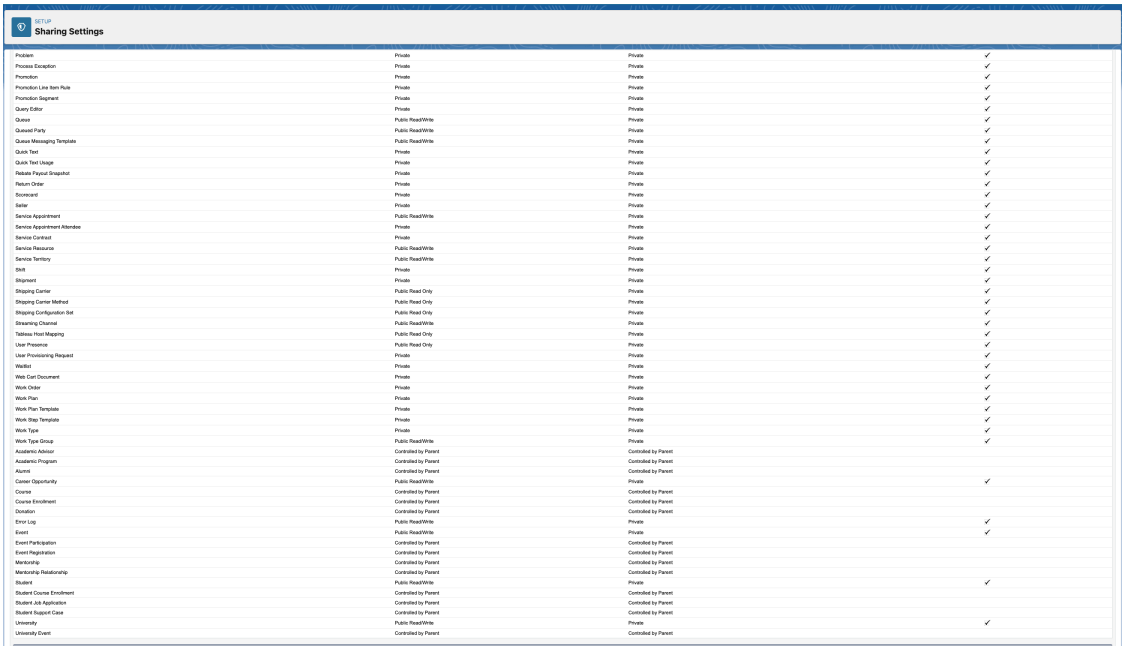
- Student Record Sharing
- Department Course Sharing
- Intervention Escalation Sharing

4.Manual Sharing Implementation:

Apex Managed Sharing:

How to navigate:
1. **Setup** → **Security** → **Sharing Settings**
2. **Object** → **Sharing Rules** → Create/edit rules
3. **Setup** → **Users** → **Public Groups** → Manage sharing groups
4. **Setup** → **Users** → **Roles** → Configure role hierarchy





🔐 Field Level Security

1.What it is:
Granular security controls that restrict access to specific fields on objects based on user profiles and permission sets.

2.Field Level Security Implementation:

Sensitive Student Data Protection:

Field	Profile Access Levels
Student__c.SSN__c	Admin: Read/Edit, Registrar: Read, Others: Hidden
Student__c.DOB__c	Admin: Read/Edit, Staff: Read, Faculty: Hidden
Student__c.Risk_Score__c| Admin: Read/Edit, Advisors: Read, Students: Hidden
Student__c.GPA__c	Admin: Read/Edit, Faculty: Read, Students: Read
Student__c.Financial_Aid| Admin: Read/Edit, FinAid: Read/Edit, Others: Hidden

3.Course Management Security:

Field	Access Control
Course__c.Budget__c	Department Chairs and Administrators only
Course__c.Instructor__c	Editable by Chairs and Admins, Read by Faculty
Course__c.Capacity__c	Registrar can edit, Faculty can read
Course__c.Waitlist__c	Staff can view/edit, Students cannot see
```

Field Level Security Enforcement:
```

4.Custom Permission Implementation:

5.Permission Set Assignments:

How to navigate:
1. **Setup** → **Users** → **Profiles** → Select profile → **Object Settings**
2. **Setup** → **Users** → **Permission Sets** → Configure field access
3. **Setup** → **Custom Permissions** → Create/assign custom permissions
4. **Developer Console** → Test field accessibility with `WITH SECURITY_ENFORCED`

🔧 Session Settings

1.What they are:
Security configurations that control user session behavior, timeouts, and authentication requirements.

2.Session Settings Configured:

- Timeout and Security Settings:

Setting	Configuration	Rationale
Session timeout	8 hours (admin)	Balance security/productivity
2 hours (students)	Higher security for sensitive data
Force logout on session timeout	Enabled	Prevent unauthorized access
Lock sessions to IP address	Disabled	Allow mobile/home access
Lock sessions to domain	Enabled	Prevent session hijacking
Disable session timeout warning	Disabled	User awareness of timeouts
```

**3.Login Security Enhancements:**

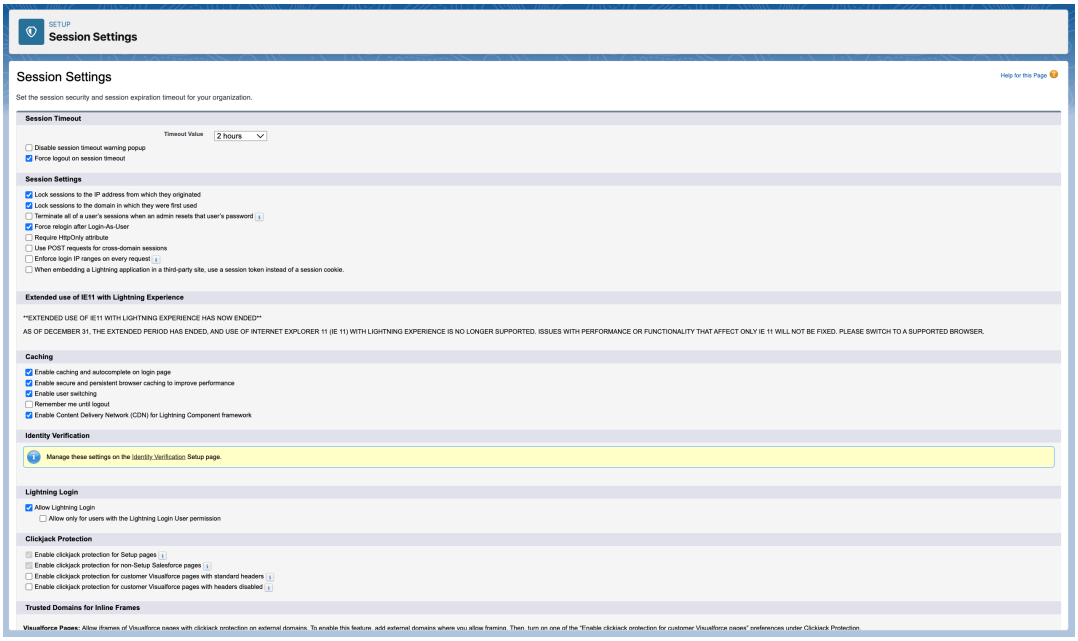
Feature | Setting | Purpose
---|---|---
Require secure connections | Always | Encrypt all communications
Require HTTPS for all requests | Enabled | End-to-end encryption
Block unencrypted web service | Enabled | Prevent data interception
Remember username | Disabled | Enhanced security
Hide password from URL | Enabled | Prevent credential exposure
Clickjack protection | Enabled | Prevent UI redressing attacks
Content sniffing protection | Enabled | Prevent MIME confusion attacks
XSS protection | Enabled | Cross-site scripting prevention

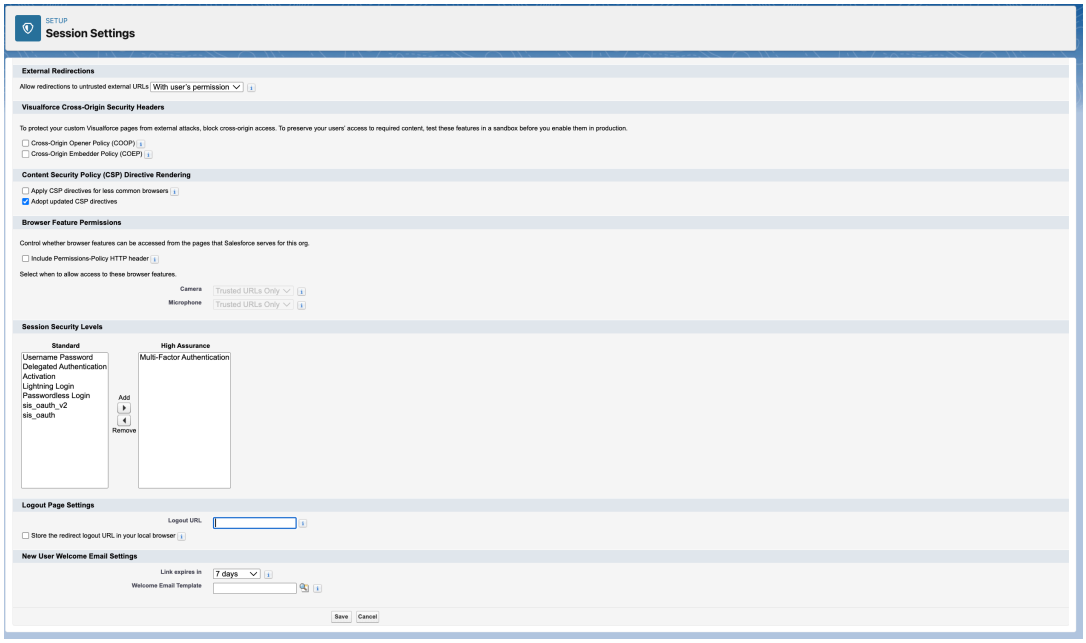
- API Session Security:

Setting | Configuration | Impact
---|---|---
API session timeout | 2 hours | Automatic session cleanup
```

Concurrent API sessions | 5 per user | Prevent session abuse
Session ID regeneration | On role change | Enhanced security
Require mutual authentication | For external APIs | Certificate-based security

How to navigate:
1. **Setup** → **Security** → **Session Settings**
2. **Setup** → **Single Sign-On Settings** → Configure SAML
3. **Setup** → **Login History** → Monitor user sessions
4. **Setup** → **Identity Verification** → Multi-factor authentication





🌐 Login IP Ranges

1.What they are:
Security restrictions that limit user login access to specific IP addresses or ranges, enhancing organizational security.

2.IP Range Configurations:

- Profile-Based IP Restrictions:

Profile	Allowed IP Ranges	Restriction Type
System Administrator	192.168.1.0 - 192.168.1.255	Campus network only
	10.0.0.0 - 10.255.255.255	VPN access
Faculty Profile	192.168.0.0 - 192.168.255.255	Campus + faculty housing
	172.16.0.0 - 172.31.255.255	Departmental networks
Student Profile	No restrictions	Allow from anywhere
Staff Profile	192.168.1.0 - 192.168.1.255	Office network
	Home office IPs (individual)	Work from home

3.Emergency Access Procedures:
1. **Temporary Access Bypass**: **System** admin can temporarily remove IP restrictions
2. **VPN Provision**: Emergency VPN access for critical users
3. **Mobile Hotspot Guidelines**: Approved cellular network ranges
4. **Exception Request Process**: Formal process for IP restriction exceptions

4.How to navigate:
1. **Setup** → **Users** → **Profiles** → Select profile → **Login IP Ranges**
2. **Setup** → **Security** → **Network Access** → Organization-wide settings
3. **Setup** → **Login History** → Monitor access patterns
4. **Reports** → **Administrative Reports** → **Login Location Report**

📋 Audit Trail

1.What it is:
Comprehensive logging system that tracks user actions, data changes, and system events for compliance and security monitoring.

2.Audit Trail Implementation:

- Field History Tracking:

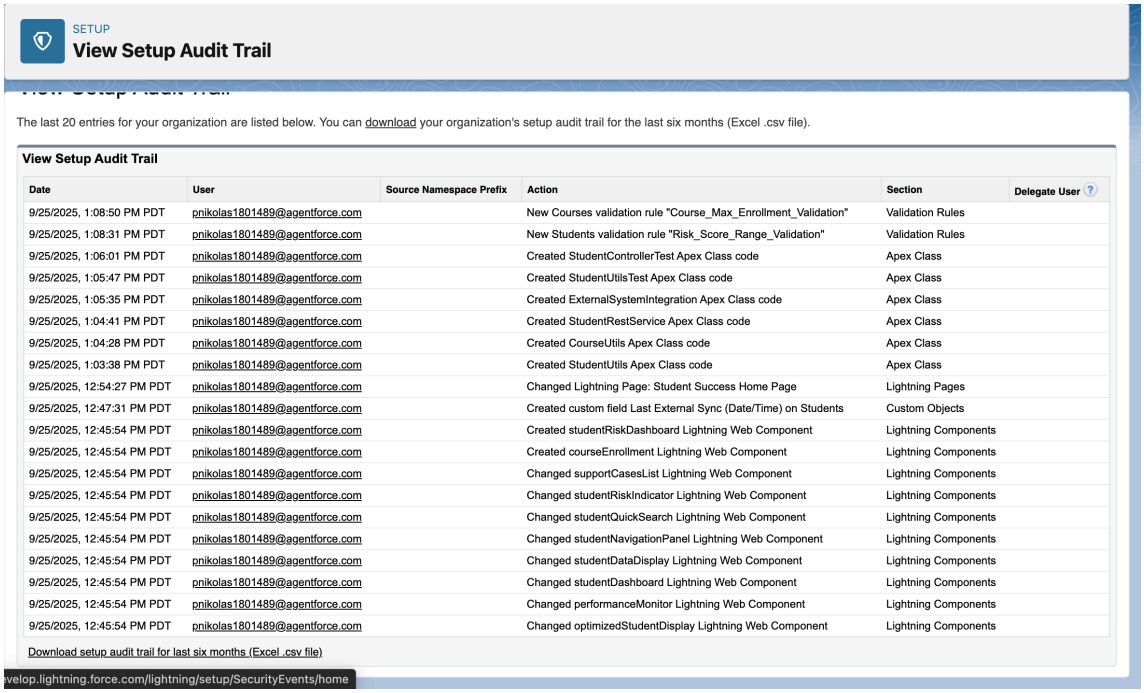
Object	Tracked Fields	Retention
Student__c	GPA__c, Risk_Score__c, Academic_Status__c	18 months

Course__c | Instructor__c, Capacity__c, Status__c | 24 months
Enrollment__c | Grade__c, Enrollment_Status__c | 7 years
Intervention__c | Status__c, Assigned_To__c, Outcome__c | 10 years
User | Profile, Role, IsActive, Department | 2 years

- Setup Audit Trail Configuration:

Tracked Event	Retention Period	Alert Threshold
Login/Logout events	6 months	>5 failed attempts
Report exports	1 year	Bulk exports >1000 records
Mass data changes	2 years	>100 records modified
Permission changes	3 years	Admin permission grants
Integration API calls	90 days	>1000 calls/hour
Password changes	1 year	Multiple changes/day
Email template modifications	18 months	Student data templates
```

**How to navigate:**
1. **Setup** → **Security** → **View Setup Audit Trail**
2. **Setup** → **Object Manager** → Select object → **Set History Tracking**
3. **Reports** → **Administrative Reports** → Create audit reports
4. **Monitor** → **Login History** → Review user access patterns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🎯 Key Benefits Achieved

1. **Data-Driven Decision Making**: Comprehensive reporting enables informed decisions
2. **Real-Time Visibility**: Dynamic dashboards provide instant insights
3. **Security Compliance**: Robust security framework meets regulatory requirements
4. **Audit Readiness**: Complete audit trails support compliance reviews
5. **Risk Management**: Proactive monitoring and alerting systems
6. **User Experience**: Role-based interfaces optimize workflow efficiency
7. **Scalable Architecture**: Security and reporting scale with organizational growth

🔒 Security Best Practices Implemented

1. **Defense in Depth**: Multiple security layers protect sensitive data
2. **Principle of Least Privilege**: Users have minimum necessary access
3. **Regular Security Reviews**: Periodic access audits and updates
4. **Incident Response**: Automated alerting and response procedures
5. **Data Classification**: Appropriate security based on data sensitivity
6. **User Education**: Security awareness and training programs
7. **Continuous Monitoring**: Real-time security event detection and analysis

📈 Performance and Scalability

1. **Report Optimization**: Efficient queries and selective data access
2. **Dashboard Caching**: Optimized refresh schedules and data caching
3. **Security Performance**: Minimal impact security controls
4. **Audit Performance**: Asynchronous logging to prevent blocking
5. **Scalable Architecture**: Security and reporting scale with growth
6. **Resource Management**: Governor limit-aware implementations
7. **Monitoring**: Performance metrics and optimization alerts