

LOC Evaluation for Iteration 1

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Teacher to fill the evaluations in the columns K-M, then might use Excel pivot to have total LOC for each student

#	Screen / Function	Feature	Screen/Function Description	In Charge
1	Login	Auth	BE: API POST /auth/login. Xác thực email/password (hash). Tạo Access Token (JWT 15p) & Refresh Token (7 ngày). Trả về User Profile + Role. FE: Form đăng nhập (React Hook Form + Zod(validation library)). Lưu Token vào LocalStorage/Cookie. Lưu User State vào Zustand. Điều hướng dựa trên Role (Admin/Student).	BangDC
2	RefreshToken	Auth	BE: API POST /auth/refresh. Verify Refresh Token trong DB/Redis. Cấp lại cặp Token mới. Chặn Reuse Token. FE: Cấu hình Axios Interceptor: Tự động catch lỗi 401, gọi API refresh token, retry lại request cũ mà user không biết.	BangDC
3	ResetPassword	Auth	BE: API POST /auth/forgot-password (Sinh OTP, gửi Mail) và POST /auth/reset-password (Verify OTP, update Pass mới). FE: Màn hình "Quên mật khẩu". Form nhập email -> Form nhập OTP & Pass mới (Có đồng hồ đếm ngược gửi lại OTP).	BangDC
4	UpdateProfile	Manage user (User)	BE: API PATCH /users/avatar. Sử dụng Multer nhận file, upload lên Cloudinary, lấy URL update vào bảng User. FE: Component AvatarUploader. Cho phép Crop ảnh trước khi up. Hiện thị Progress bar khi đang upload.	KhuongTM
5	View actor	Manage roles (IT Admin)	Xem danh sách các role trong hệ thống	BangDC
6	Add/Update actor	Manage roles (IT Admin)	Add/update permission actor for screen	BangDC
7	Manage Roles	Admin	dynamic permission CRUD in screen Có thể chuyển sang sprint 3, 4	

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8	View User	Manage users (IT Admin)	View danh sách user	KhuongTM
9	ImportUsers	Manage users (IT Admin)	BE: API POST /users/import. Dùng thư viện exceljs đọc buffer. Validate từng dòng (Email đúng format? Trùng DB không?). Insert Batch (dùng Transaction). Tạo Wallet mặc định. FE: Button "Import Excel". Popup chọn file. Hiển thị thanh tiến trình xử lý. Hiển thị bảng kết quả: Số dòng thành công/thất bại (cho phép tải file log lỗi).	KhuongTM
10	Update/delete user	Manage users (IT Admin)	Update/delete user: quyền truy cập, chặn	KhuongTM
11	GlobalErrorHandling (Tech)	System	BE: Class AllExceptionsFilter (NestJS). Catch toàn bộ HttpError, DatabaseError. Format response chuẩn {statusCode, message, timestamp, path}. Ghi log ra file error.log. FE: hiển thị form các lỗi.	OanhNTK
12	SetupSocketIO(Tech)	System	BE: Cấu hình SocketIO. Handle sự kiện connection, disconnect. Xác thực JWT qua Handshake header (đảm bảo user login mới connect được). FE: Cấu hình SocketProvider (Context) ở root app. Kết nối socket khi App khởi động.	HuyHM
13	CloudinaryService (Tech)	System	BE: Viết Service Wrapper cho Cloudinary SDK. Hàm uploadImage(file), deleteImage(publicId). Cấu hình biến môi trường. FE: Không có.	HuyHM

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#	Screen / Function	Feature	Screen/Function Description	In Charge
14	SeedMasterData (Tech)	Tool	BE: Viết Script chạy lệnh (CLI). Dùng faker.js sinh 1000 SV, 100 GV, 50 Phòng, thiết bị, môn học, khung chương trình. Logic random nhưng đảm bảo ràng buộc (SV K17 phải học Curriculum K17). FE: Không có.	HuyHM
15	View Subject list	Manage subjects (Academic staff)	BE: CRUD API Subjects. Validate unique subject_code. FE: Màn hình "Subject List". Modal "Create Subject" (Nhập Tên, Mã, Số tín chỉ).	ThatTM
16	Create subject	Manage subjects (Academic staff)	Create các môn học	ThatTM
17	Update/delete subject	Manage subjects (Academic staff)	Update/delete các trường thông tin liên quan	ThatTM
18	Filter/sort	Manage subjects (Academic staff)	Filter/sort by name và by code_subject	HuyHM
19	ConfigurePrerequisites	Manage subjects (Academic staff)	BE: API POST /subjects/prerequisite. Logic đệ quy kiểm tra vòng lặp (A cần B, B cần C, C không được cần A). Insert vào bảng trung gian. FE: UI chọn môn học dạng "Dual Listbox" (Trái: List môn, Phải: Môn tiên quyết đã chọn).	ThatTM
20	View Curriculums	Manage Curriculums (Academic staff)	View Curriculums BE: CRUD API Curriculums. Logic Clone khung chương trình cũ. API POST /curriculums/:id/subjects add môn vào từng kỳ. FE: Màn hình "Curriculum Manager". UI dạng Board (Kéo thả môn học vào các cột Học kỳ 1, 2, 3...).	ThatTM
21	Add Subject to curriculum	Manage Curriculums (Academic staff)	Add Subjects to Curriculum	ThatTM
22	Add Curriculum	Manage Curriculums (Academic staff)	Add	ThatTM

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#	Screen / Function	Feature	Screen/Function Description	In Charge
23	Update/Delete Curriculums	Manage Curriculums (Academic staff)	Update/delete	ThatTM
24	View ConfigureTuitionFees	Manage Finance (Kế toán)	View BE: API PUT /settings/tuition. Lưu cấu hình giá tiền/tín chỉ theo khóa học. FE: Form cấu hình bảng giá. Input nhập tiền (Format VND).	HuyHM
25	Add/Delete ConfigureTuitionFees	Manage Finance (Kế toán)	Add/update Fees follow semester	HuyHM
26	View Rooms	Manage Rooms (Admin)	View BE: CRUD Rooms. Validate capacity > 0. FE: Form thêm phòng học.	HuyPVQ
27	Create Rooms	Manage Rooms (Admin)	Create	HuyPVQ
28	Update/delete Rooms	Manage Rooms (Admin)	Update/delete	HuyPVQ
29	Filter/sort Rooms	Manage Rooms (Admin)	Filter/sort	HuyPVQ
30	View TimeSlots	Manage TimeSlots (Admin)	View BE: CRUD Slots. Validate không được trùng giờ (Slot 1: 7h-9h, Slot 2 không được bắt đầu lúc 8h). FE: Bảng cấu hình ca học. Time picker chọn giờ bắt đầu/kết thúc.	HuyPVQ

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#	Screen / Function	Feature	Screen/Function Description	In Charge
31	CreateTimeSlots	Manage TimeSlots (Admin)	Create	HuyPVQ
32	Update/Delete TimeSlots	Manage TimeSlots (Admin)	Update/Delete	HuyPVQ
33	View Majors	Manage Majors(Admin)	View BE: CRUD Majors. FE: Danh sách Ngành đào tạo.	OanhNTK
34	Create Majors	Manage Majors(Admin)	Create	OanhNTK
35	Update/Delete Majors	Manage Majors(Admin)	Update/delete	OanhNTK
36	ManageSystemSettings	System	BE: API lưu Logo, Tên trường vào Redis/DB. FE: Màn hình "General Settings". Upload Logo trường. save .env	KhuongTM
37	BackupData	System	BE: Script dump dữ liệu database ra file .sql, nén .zip và upload lên S3 backup bucket. FE: Button "Backup Now" trong Admin Dashboard.	KhuongTM
38	Database			ThatTM
39	Project Design			OanhNTK
40	Logout	All role		BangDC
41	View profile	All role	Xem thông tin chi tiết của account	KhuongTM
42	Home view	Student, parent user	Hiển thị các tác vụ sinh viên và phụ huynh được thực hiện	OanhNTK
43	Search task	Student, parent user	Tìm kiếm tác vụ trên trang home	OanhNTK

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#	Screen / Function	Feature	Status	SRS	SDS	Complexity
1	Login	Auth	To Do			Medium
2	RefreshToken	Auth	To Do			Simple
3	ResetPassword	Auth	To Do			Simple
4	UpdateProfile	Manage user (User)	To Do			Simple
5	View actor	Manage roles (IT Admin)	To Do			Simple
6	Add/Update actor	Manage roles (IT Admin)	To Do			Simple
7	Manage Roles	Admin	To Do			Medium

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#	Screen / Function	Feature	Status	SRS	SDS	Complexity
8	View User	Manage users (IT Admin)	To Do			Simple
9	ImportUsers	Manage users (IT Admin)	To Do			Medium
10	Update/delete user	Manage users (IT Admin)	To Do			Simple
11	GlobalErrorHandling (Tech)	System	To Do	Sub chart	Sub chart	Simple
12	SetupSocketIO(Tech)	System	To Do			Simple
13	CloudinaryService (Tech)	System	To Do			Simple

Chart: Client => Router => S
Vẽ: Sub sequences

Có thể chuyển sang sprint 3

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#	Screen / Function	Feature	Status	SRS	SDS	Complexity
14	SeedMasterData (Tech)	Tool	To Do			Medium
15	View Subject list	Manage subjects (Academic staff)	To Do			Simple
16	Create subject	Manage subjects (Academic staff)	To Do			Simple
17	Update/delete subject	Manage subjects (Academic staff)	To Do			Simple
18	Filter/sort	Manage subjects (Academic staff)	To Do			Simple
19	ConfigurePrerequisites	Manage subjects (Academic staff)	To Do			Simple
20	View Curriculums	Manage Curriculums (Academic staff)	To Do			Simple
21	Add Subject to curriculum	Manage Curriculums (Academic staff)	To Do			Simple
22	Add Curriculum	Manage Curriculums (Academic staff)	To Do			Simple

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#	Screen / Function	Feature	Status	SRS	SDS	Complexity
23	Update/Delete Curriculums	Manage Curriculums (Academic staff)	To Do			Simple
24	View ConfigureTuitionFees	Manage Finance (Kế toán)	To Do			Simple
25	Add/Delete ConfigureTuitionFees	Manage Finance (Kế toán)	To Do			Simple
26	View Rooms	Manage Rooms (Admin)	To Do			Simple
27	Create Rooms	Manage Rooms (Admin)	To Do			Simple
28	Update/delete Rooms	Manage Rooms (Admin)	To Do			Simple
29	Filter/sort Rooms	Manage Rooms (Admin)	To Do			Simple
30	View TimeSlots	Manage TimeSlots (Admin)	To Do			Simple

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#	Screen / Function	Feature	Status	SRS	SDS	Complexity
31	CreateTimeSlots	Manage TimeSlots (Admin)	To Do			Simple
32	Update/Delete TimeSlots	Manage TimeSlots (Admin)	To Do			Simple
33	View Majors	Manage Majors(Admin)	To Do			Simple
34	Create Majors	Manage Majors(Admin)	To Do			Simple
35	Update/Delete Majors	Manage Majors(Admin)	To Do			Simple
36	ManageSystemSettings	System	To Do			Simple
37	BackupData	System	To Do			Medium
38	Database		To Do			Simple
39	Project Design		To Do			Simple
40	Logout	All role	To Do			Simple
41	View profile	All role	To Do			Simple
42	Home view	Student, parent user	To Do			Simple
43	Search task	Student, parent user	To Do			Simple

Chuyển sang sprint 3 haocwj

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#	Screen / Function	Feature
1	Login	Auth
2	RefreshToken	Auth
3	ResetPassword	Auth
4	UpdateProfile	Manage user (User)
5	View actor	Manage roles (IT Admin)
6	Add/Update actor	Manage roles (IT Admin)
7	Manage Roles	Admin

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12	SetupSocketIO(Tech)	System
13	CloudinaryService (Tech)	System

Job sequences => Controller

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17	Update/delete subject	Manage subjects (Academic staff)
18	Filter/sort	Manage subjects (Academic staff)
19	ConfigurePrerequisites	Manage subjects (Academic staff)
20	View Curriculums	Manage Curriculums (Academic staff)
21	Add Subject to curriculum	Manage Curriculums (Academic staff)
22	Add Curriculum	Manage Curriculums (Academic staff)

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24	View ConfigureTuitionFees	Manage Finance (Kế toán)
25	Add/Delete ConfigureTuitionFees	Manage Finance (Kế toán)
26	View Rooms	Manage Rooms (Admin)
27	Create Rooms	Manage Rooms (Admin)
28	Update/delete Rooms	Manage Rooms (Admin)
29	Filter/sort Rooms	Manage Rooms (Admin)
30	View TimeSlots	Manage TimeSlots (Admin)

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35	Update/Delete Majors	Manage Majors(Admin)
36	ManageSystemSettings	System
37	BackupData	System
38	Database	
39	Project Design	
40	Logout	All role
41	View profile	All role
42	Home view	Student, parent user
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