Test Suite - Epics for the Administration Role

**Test Suite for the Updated Epics of the Administration Role**

This test suite ensures that all functionalities for the **Administrator Role** in Etoile Yachts work as expected. The tests cover **functional, security, and edge cases** for administrator registration, login, platform management, and financial transactions.

**📌 Test Categories**

1.**Administrator Registration & Validation**  
2.**Secure Administrator Login with MFA**  
3.**Administrator Role & Permissions Management**  
4.**Platform Administration & Monitoring**  
5.**Payout Management for Producers & Partners**  
6.**Compliance & Financial Security**  
7.**Customer & Partner Support**

Each test includes **Test ID, Description, Preconditions, Steps, Expected Results, and Edge Cases**.

**1.Administrator Registration & Validation**

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| --- | --- | --- | --- | --- |
| **Test ID** | **Test Case Description** | **Preconditions** | **Test Steps** | **Expected Result** |
| **ARV-001** | Super Admin can send an invite to an email address | Super Admin logged in | 1. Navigate to Admin Dashboard  2. Enter email & role  3. Click "Send Invite" | Invite is sent, and the system stores the token in Firestore |
| **ARV-002** | Admin cannot register without an invite link | User tries accessing /admin-register without an invite token | 1. Open /admin-registerdirectly  2. Attempt to submit form | System denies access with a **"No valid invite found"** message |
| **ARV-003** | Admin registration requires email & phone OTP verification | User has invite token | 1. Open invite link  2. Enter details  3. Receive & enter OTP  4. Submit | Admin account created with status pending approval |
| **ARV-004** | Admin remains inactive until manually approved | Admin registered | 1. Attempt login before approval | System denies access with **"Pending Admin Approval"**message |
| **ARV-005** | Super Admin can approve new Admins | New admin account exists | 1. Open Admin Dashboard  2. Approve the pending admin | Admin status updates to active, email notification sent |

**Edge Cases**  
🔹 **ARV-006**: Expired invite token → System denies registration  
🔹 **ARV-007**: Incorrect OTP → System blocks access after 3 failed attempts  
🔹 **ARV-008**: Password too weak → System rejects registration

**2.Secure Administrator Login with Multi-Factor Authentication (MFA)**

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| --- | --- | --- | --- | --- |
| **Test ID** | **Test Case Description** | **Preconditions** | **Test Steps** | **Expected Result** |
| **ALM-001** | Admins log in via a dedicated admin portal | Admin account exists | 1. Open /admin-login 2. Enter valid email & password  3. Click "Login" | System prompts for **MFA verification** |
| **ALM-002** | Login fails if email/password is incorrect | None | 1. Enter wrong credentials  2. Click "Login" | System shows **"Invalid Credentials"** |
| **ALM-003** | Login fails if admin account is inactive | Admin registered but not approved | 1. Attempt to login | System denies access |
| **ALM-004** | MFA is enforced for all logins | Admin logging in for the first time | 1. Login with email/password  2. Enter OTP from Google Authenticator/SMS | System grants access to dashboard |

**Edge Cases**  
🔹 **ALM-005**: Multiple failed logins → Account locks after 5 attempts  
🔹 **ALM-006**: OTP expired → System rejects and prompts for a new OTP

**3.Administrator Role & Permissions Management**

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| **Test ID** | **Test Case Description** | **Preconditions** | **Test Steps** | **Expected Result** |
| **ARM-001** | Super Admin can create other Admins | Super Admin logged in | 1. Open Admin Dashboard  2. Click "Create Admin"  3. Assign role & send invite | New admin receives an invite |
| **ARM-002** | Admins cannot modify roles they don't own | Admin logged in | 1. Attempt to change another admin's role | System denies action |
| **ARM-003** | Only Super Admins can delete Admins | Super Admin logged in | 1. Select an Admin  2. Click "Delete"  3. Confirm deletion | Admin is removed from system |

**Edge Cases**  
🔹 **ARM-004**: Unauthorized user tries modifying admin permissions → System denies  
🔹 **ARM-005**: Attempt to delete last Super Admin → System prevents deletion

**4.Platform Administration & Monitoring**

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| **Test ID** | **Test Case Description** | **Preconditions** | **Test Steps** | **Expected Result** |
| **PAM-001** | Admin Dashboard displays platform stats | Admin logged in | 1. Open Dashboard  2. View statistics | Booking, revenue, and activity stats load |
| **PAM-002** | System logs failed transactions | Transaction fails | 1. Open Admin Logs  2. View failed transactions | Failure logs are recorded |

**5.Payout Management for Producers and Partners**

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| **Test ID** | **Test Case Description** | **Preconditions** | **Test Steps** | **Expected Result** |
| **PMP-001** | Admin can approve pending payouts | Payouts exist | 1. Open Payout Dashboard  2. Approve payout | Payment is processed |

**Edge Cases**  
🔹 **PMP-002**: Invalid bank details → System rejects payout  
🔹 **PMP-003**: Large transactions require extra verification

**6.Compliance & Financial Security**

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| **Test ID** | **Test Case Description** | **Preconditions** | **Test Steps** | **Expected Result** |
| **CFS-001** | System blocks suspicious transactions | High-risk transaction detected | 1. Attempt large payout | System flags for review |

**Edge Cases**  
🔹 **CFS-002**: Multiple failed login attempts → System locks account

**7.Customer & Partner Support**

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| --- | --- | --- | --- | --- |
| **Test ID** | **Test Case Description** | **Preconditions** | **Test Steps** | **Expected Result** |
| **CPS-001** | Admin can resolve customer disputes | Open dispute exists | 1. Open Support Dashboard  2. Mark dispute as resolved | Case is closed |

**📌 Summary**

✅ **Comprehensive Test Cases** covering **registration, login, security, role-based access, payouts, and compliance**.  
✅ **Edge Cases** included for **security risks, failed logins, fraud detection, and access control**.  
✅ **Pass/Fail Criteria** clearly defined for each test scenario.

Would you like automation test scripts for Cypress, Jest, or another testing framework?