Softpro Skill Solutions – Training Management System Draft (Comprehensive)

**I. Flow & Hierarchy Overview**

\* Training Partner (TP): Softpro Skill Solutions (Single Instance)

\* Consideration: While currently a single TP, the system architecture should retain the TP entity for potential future scaling or internal organizational structure.

\* Training Center (TC): Multiple physical or virtual locations managed by Softpro Skill Solutions. Each TC will have its own specific details and operational scope.

\* Scheme (Govt or Paid): Categorization of training programs based on funding source or payment model, offered by various TCs.

\* Sector (Domain): Broad industry categories (e.g., IT, Retail) under which specific job roles/courses are organized.

\* Job Role / Course: Specific training programs offered within a sector and under a particular scheme. Each course will have defined content, duration, and fees.

\* Batch: Specific instances of a course with defined start and end dates, timings, and enrolled students.

\* Students: Individuals enrolled in training programs, associated with a specific batch.

**II. User Roles & Permissions**

\* Admin: Superuser with unrestricted access to all modules and functionalities. Can manage all aspects of the system, including TPs, TCs, schemes, sectors, courses, batches, users, roles, permissions, system settings, and data integrity. Capable of performing all actions of other roles and overriding any restrictions.

\* Reception/MIS: Responsible for student onboarding, registration, fee management (including EMI), generating fee receipts, and managing student records for their assigned Training Center(s). Restricted from managing course content, assessments, or certificates and requires Admin approval for fee entries.

\* Training Center: Primarily focused on managing the delivery of training for their assigned Training Center. This includes viewing assigned batches, accessing student rosters, and uploading assessment results.

**III. Core Modules & Functionality**

\* Training Partner Management (TP)

\* Add/View/Edit/Delete Training Partners (though initially only Softpro Skill Solutions). Include details like name, contact person, email, phone, address, registration number, and status (active/inactive).

\* Assign specific Training Centers under each TP (one-to-many relationship).

\* Training Center Management (TC)

\* Add/View/Edit/Delete TCs with details such as name, address, contact person, email, phone, and affiliation with the TP (dropdown).

\* Enable/disable TC logins to the system.

\* Assign specific Schemes that the TC is authorized to offer (many-to-many relationship).

\* Scheme Management

\* Add/View/Edit/Delete Govt. / Paid schemes with names, descriptions, and unique scheme codes.

\* Link schemes to specific Training Centers (many-to-many).

\* Store metadata specific to Govt. schemes (Sponsor Name, Funding Percentage, Applicable Guidelines URL/Document).

\* Sector Management

\* Add/View/Edit/Delete sectors (e.g., IT, Retail, Construction) with names and optional descriptions.

\* Assign sectors under specific Schemes (many-to-many relationship).

\* Job Role / Course Management

\* Add/View/Edit/Delete job roles/courses with names, detailed descriptions, learning objectives, and prerequisites (optional).

\* Assign courses under specific Sectors (one-to-many).

\* Define:

\* Course Price (numeric with currency).

\* Discount (optional percentage or fixed amount – applied once per student).

\* Duration (in days/weeks/months).

\* Generate unique Course Codes (optional, with customizable prefix/suffix and auto-incrementing number).…

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3. \*Scheme Management\*

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\* Add/View/Edit/Delete sectors (e.g., IT, Retail, Construction) with names and optional descriptions.

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5. \*Job Role / Course Management\*

\* Add/View/Edit/Delete job roles/courses with names, detailed descriptions, learning objectives, and prerequisites (optional).

\* Assign courses under specific Sectors (one-to-many).

\* Define:

\* Course Price (numeric with currency).

\* Discount (optional percentage or fixed amount – applied once per student).

\* Duration (in days/weeks/months).

\* Generate unique Course Codes (optional, with customizable prefix/suffix and auto-incrementing number).

6. \*Batch Management\*

\* Add/View/Edit/Delete batches with a unique batch identifier.

\* Assign each batch under a specific Course/Job Role (dropdown).

\* Set:

\* Start Date (date picker).

\* End Date (date picker).

\* Daily Timings (start and end time).

\* Trainer Name (optional – future link to a "Trainer" user role).

\* Batch Strength (maximum capacity).

\* Track the current number of enrolled students.

7. \*Student Management\*

\* Add/View/Edit/Delete student records with mandatory fields (Name, Gender, Phone, Aadhaar Number, Email, Full Address) and optional fields.

\* Generate a Unique Enrollment Number automatically.

\* \*Document Upload:\* Functionality to upload:

\* Photograph (max 1MB, JPEG, JPG, PDF).

\* Educational Documents (max 1MB each, JPEG, JPG, PDF).

\* Aadhaar Card (max 1MB, JPEG, JPG, PDF).

\* Other Documents (configurable number, max 1MB each, JPEG, JPG, PDF).

\* Client-side validation for file size and format.

\* Student Assignment via multi-level dropdown: TP → TC → Scheme → Sector → Course → Batch.

\* Automatic SMS and email notifications on registration with login details and course information.

\* Comprehensive Student Profile view with all enrollment, payment, assessment, and certificate history.

\* \*Student Application PDF Generation:\* Automatically create a downloadable PDF after registration, using a Softpro Skill Solutions letterhead, including student details, course/batch info, and the uploaded photograph. The letterhead will contain "Softpro Skill Solutions" prominently, "Student Application Form" as the heading, and TC address/contact details in the footer.

8. \*Student Fee Management (EMI System)\*

\* Course Price auto-loads upon student-course assignment.

\* Apply optional discount (percentage or fixed amount, once only).

\* Record any number of EMI-based payments with Date, Amount, Mode (Cash, Online, Cheque), and Remarks.

\* Display all payments in a tabular format.

\* \*Payment Receipt Generation:\* Printable receipt (half A4 vertical) with:

\* \*Top:\* "Softpro Skill Solutions" (large font).

\* \*Rounded Corner Border:\* Enclosing "Payment Receipt" header, Enrollment No, Student Info, Course Info, Batch Info (dates), Payment Info Table (Date, Amount, Mode, Receipt No., Remarks), and Payment Summary (Total Paid, Remaining Balance).

\* \*Bottom:\* Softpro Skill Solutions name, TC name and address, and TC contact numbers.

\* Auto-generate unique Receipt Numbers.

\* Admin-only approval for payments entered by Reception/MIS.

\* Display Pending Balance on dashboards with potential alerts.

9. \*Assessment Management\*

\* Add assessments for specific batches with Name, Maximum Marks, and Passing Marks.

\* Option for linking to course modules (future).

\* Enter result status (Pass/Fail/Absent) for each student.

\* Bulk result upload via Excel import with template validation.

10. \*Certificate Management\*

\* Admin-only generation after "Pass" status in all required assessments.

\* Certificates in PDF format (auto-template) with a Unique Certificate Number.

\* SMS/email notification on issuance with a download link.

\* Option for students to view/download certificates from their profile.

\*IV. Dashboard Features (Role-Specific)\*

\* \*Admin Dashboard:\* Cards (Total Students, Payments, Pending Payments, Certificates Issued), Graphs (Monthly Fee Collection, Students by Scheme, Course Popularity, Govt vs Paid Donut), Notifications (Pending approvals, fee status, batch status).

\* \*Reception Dashboard:\* Assigned TC students, Fee entry status, Batch statistics for their TC.

\* \*Training Center Dashboard:\* View assigned batches, Upload results, (Future) Student attendance.

\*V. Reports & Exporting\*

\* Filter by: TP (Softpro Skill Solutions), TC, Scheme, Course, Batch, Date Ranges, Result Status, Payment Status.

\* Export to: Excel, PDF, Print View.

\*VI. Miscellaneous Features\*

\* Bulk Upload: Students (CSV/Excel with validation).

\* Bulk Print: Fee Receipts, Certificates (based on criteria).

\* Status Badges: Paid/Pending, Pass/Fail.

\* Form Validations: Required fields, format checks (email, phone), data type validation.

\* Secure Login & Role Redirection.

\* Fixed Top Navbar + Sidebar Layout.

\* Fully Responsive (Mobile Friendly - desktop-first priority).

\* Clean, colorful design.

\* Good Date Pickers, Toastr/SweetAlert notifications.

\* \*Password Reset:\*

\* "Forgot Password" link on login sending a time-sensitive reset link to the user's email.

\* Admin ability to reset any user's password within the portal.

\* Dark mode (optional future).

\*VII. Suggested DB Table Summary\*

| Table Name | Columns |

| :--------------------- | :--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------- |

| tbl\\_users | user\_id (PK, AI), role (Admin/Reception/TC), username (unique), password (hashed), email (unique), first\_name, last\_name, phone\_number, is\_active (boolean), created\_at, updated\_at, tc\_id (FK to tbl\_training\_centers - nullable for Admin) |

| tbl\\_training\\_partners | tp\_id (PK, AI), tp\_name (unique), contact\_person, email, phone, address, registration\_number, status, created\_at, updated\_at |

| tbl\\_training\\_centers | tc\_id (PK, AI), tp\_id (FK to tbl\_training\_partners), tc\_name (unique), address, contact\_person, email, phone, is\_active (boolean), created\_at, updated\_at |

| tbl\\_schemes | scheme\_id (PK, AI), scheme\_name (unique), scheme\_code (unique), scheme\_type (Govt/Paid), sponsor\_name (nullable), funding\_percentage (nullable), guidelines\_url (nullable), created\_at, updated\_at |

| tbl\\_sectors | sector\_id (PK, AI), sector\_name (unique), description (nullable), created\_at, updated\_at |

| tbl\\_courses | course\_id (PK, AI), sector\_id (FK to tbl\_sectors), course\_name (unique), description (nullable), price, discount\_type (percentage/fixed/none), discount\_value (nullable), duration\_value, duration\_unit (days/weeks/months), course\_code (unique, nullable), created\_at, updated\_at |

| tbl\\_batches | batch\_id (PK, AI), course\_id (FK to tbl\_courses), batch\_identifier (unique), start\_date, end\_date, start\_time, end\_time, trainer\_id (FK to tbl\_users - future), capacity, created\_at, updated\_at |

| tbl\\_students | student\_id (PK, AI), enrollment\_number (unique), first\_name, last\_name, gender, phone\_number, aadhaar\_number, email (unique), address, photo\_path (string), education\_docs\_path (JSON/string), aadhaar\_doc\_path (string), other\_docs\_path (JSON/string), registration\_date, assigned\_tp\_id (FK), assigned\_tc\_id (FK), assigned\_scheme\_id (FK), assigned\_sector\_id (FK), assigned\_course\_id (FK), assigned\_batch\_id (FK), created\_at, updated\_at |

| tbl\\_student\\_fees | fee\_id (PK, AI), student\_id (FK), payment\_date, amount\_paid, payment\_mode, receipt\_number (unique), remarks, approval\_status (Pending/Approved/Rejected), approved\_by\_admin\_id (FK to tbl\_users), created\_at, updated\_at |

| tbl\\_assessments | assessment\_id (PK, AI), batch\_id (FK), assessment\_name, maximum\_marks, passing\_marks, created\_at, updated\_at |

| tbl\\_results | result\_id (PK, AI), assessment\_id (FK), student\_id (FK), marks\_obtained, result\_status (Pass/Fail/Absent), created\_at, updated\_at |

| tbl\\_certificates | certificate\_id (PK, AI), student\_id (FK), course\_id (FK), certificate\_number (unique), issue\_date, pdf\_path (string), created\_at, updated\_at |