PMS Commission, Fixed Team Allocation & Provident Fund - Technical Implementation Plan

PMS Commission, Fixed Team Allocation & Provident Fund

Technical Implementation Plan

Purpose

This implementation plan translates the confirmed PMS Commission Business Logic into a development-ready sequence. It covers Project Team setup, contributor assignment, commission configuration and calculation, Office Expense, Fixed Team Allocation, Provident Fund (PF), and Company EPS.

> **Implementation Rule:** Existing PMS/ERP architecture must be inspected first. Reuse equivalent tables, models, repositories, services, permissions, configuration, and payment structures. Do not create duplicate migrations or duplicate domain concepts.

---

1. Overall Implementation Flow

```
ERP Project
    ↓
Project Details
    ↓
Payment Flow / Cleared Payment
    ↓
```

```
Commission Rule Configuration
     ↓
Project Team Creation
     ↓
Team Distribution Configuration
     ↓
Team Member Assignment
     ↓
Designation / Act As Role
     ↓
Client Payment Received / Cleared
     ↓
Applicable Payment Charges
     ↓
Dynamic Office Expense
     ↓
Final Commission Base
     ↓
Percentage Commission OR Fixed Team Allocation
     ↓
Commission Detail / Schedule
     ↓
Commission Summary
     ↓
Finite Commission Period Ends
     ↓
PF Calculation
     ↓
PF Summary / Maturity
     ↓
Management Manual PF Disbursement
     ↓
Company EPS
```

2. Phase 1 - ERP Project Creation

The ERP Project module remains the owner of the project lifecycle.

The project will contain existing project information such as:

```
id
project_name
start_date
end_date
...
```

Payment details and payment procedure belong to the ERP/payment flow. This implementation plan only defines the integration point needed by Commission.

Commission processing must be able to consume at least:

```
project_id
payment_reference
payment_date
payment_status
payment_amount / applicable net base
```

The exact payment implementation must not be duplicated inside the Commission module.

3. Phase 2 - Commission Rule Configuration

Suggested Table

```
pms_commission_rules
```

Suggested Columns

```
id
department_name
percentage
status
effective_from
effective_to
created_at
updated_at
```

Example:

```
department_name = Business Development
percentage      = 30%
```

These are configuration values. Commission percentages must not be hard-coded in controllers, services, jobs, or models.

4. Phase 3 - Project Team Creation

After a Project is created, the user creates the project team.

Team Form

The form should provide:

```
Project
Team Name
BD Team Count
Development Team Count
```

If the user enters:

```
BD Team Count = 3
```

the frontend should dynamically display three BD member input sections.

If the user enters:

```
Development Team Count = 4
```

the frontend should dynamically display four Development member input sections.

The same dynamic pattern applies to other supported team types.

5. Phase 4 - Team Database

Suggested Table

```
pms_project_teams
```

Required Columns

```
id
project_id
team_type
```

```
team_distribution
team_commission
team_count
created_at
updated_at
```

Column Purpose

Column	Purpose
id	Team identifier
project_id	Related ERP project
team_type	Business Development, Development, etc.
team_distribution	Distribution method/configuration
team_commission	Applicable team commission configuration/ reference
team_count	Number of team members

6. Phase 5 - Team Member Pivot

Suggested Table

```
pms_project_team_users
```

Required Columns

```
id
team_id
project_id
user_id
designation_id
created_at
updated_at
```

The relationship is:

```
Project
  ↓
Team
  ↓
Team Members
```

```
   ↓
User
   ↓
Designation
```

7. Act As Role / Designation

There must be no separate hard-coded Act As Role master table.

`designation_id` references the existing Designation List.

Therefore:

```
Existing Designation List
        ↓
Project Team Member
        ↓
designation_id = project-specific Act As Role
```

An employee can have:

```
Official Role = PM
```

and in a project:

```
Act As Role = Salesperson
```

The employee's official designation does not change.

8. Multiple Projects Per Employee

A user can be assigned to multiple project teams at the same time.

Example:

```
User 1001

Project A → Manager
Project B → PM
Project C → Closer
```

No unique rule should prevent the same user from being assigned to multiple projects.

Each project/team/role assignment is independent.

9. Phase 6 - Team Distribution Method

The team must support two separate allocation methods:

```
Percentage Commission
OR
Fixed Team Allocation
```

Do not apply both methods to the same contributor calculation unless Management explicitly changes the business rule.

10. Fixed Team Allocation

Fixed Team Allocation is percentage based.

The role budget is stored as a percentage of the applicable team budget.

Example:

```
Team Budget = $100

Manager = 50%
PM      = 20%
Writer  = 15%
Closer  = 15%
```

The system calculates:

```
Manager Pool = $50
PM Pool      = $20
Writer Pool  = $15
Closer Pool  = $15
```

Formula

```
Role Allocation Amount
=
Team Budget × Configured Role Allocation %
```

11. Fixed Allocation With Multiple Employees

If two employees belong to the same designation/role, the role allocation is divided equally among eligible members.

Example:

```
Team Budget = $100
Manager Allocation = 50%
Manager Pool = $50

Manager 1
Manager 2
```

Result:

```
Manager 1 = $25
Manager 2 = $25
```

Formula:

```
Per Employee Allocation
=
Role Allocation Amount ÷ Eligible Employee Count
```

12. Phase 7 - Business Development Contributor Configuration

The Business Development contributor configuration will support:

```
Designation
User
Commission Percentage
Duration Value
Duration Type
```

Example:

```
Designation = Closer
User = Rahim
Commission = 2.75%
```

```
Duration = 3
Duration Type = Months
```

The exact duration enum should follow existing project conventions. Current business logic includes finite duration and Lifetime.

13. Phase 8 - Office Expense Rule

Office Expense is a dynamic percentage-based deduction.

Suggested Table

```
pms_office_expense_rules
```

Suggested Columns

```
id
percentage
status
effective_from
effective_to
created_at
updated_at
```

Example:

```
percentage = 7%
```

Management can change the value later without code changes.

14. Office Expense Calculation

Financial flow:

```
Client Gross Payment
        ↓
Applicable Platform / Payment Charges
        ↓
Net Amount
        ↓
Office Expense %
        ↓
```

```
Office Expense Amount
        ↓
Final Commission Base
```

Formula:

```
Office Expense Amount
=
Net Amount After Applicable Charges × Office Expense %
```

Then:

```
Final Commission Base
=
Net Amount After Applicable Charges - Office Expense Amount
```

The exact technical source/API of platform/payment charges is outside this Commission implementation scope. The Commission module consumes the applicable payment/base information from the payment flow.

15. Phase 9 - Payment Integration Point

Commission calculation starts only after the client payment is confirmed as received/cleared.

It does not start merely because:

- the project was created;
- the project started;
- an invoice was created; or
- payment was expected.

The payment flow should publish or invoke the Commission calculation process after clearing.

Example:

```
Payment Cleared
      ↓
Commission Trigger
      ↓
Commission Service
```

16. Commission Calculation Table

Table

```
project_user_commissions
```

Required Columns

```
id
emp_id
user_id
designation_id
team_id
project_id
fiscal_month
amount
duration
duration_date
payment_month_number
created_at
updated_at
```

Purpose

This table stores project/user/designation-level commission calculations for each applicable payment month.

17. Payment Month Number

`payment_month_number` tracks the commission sequence relative to the client payment.

Example:

```
Client Payment = January
Duration = 3 Months
```

Then:

```
Month 1 → payment_month_number = 1
Month 2 → payment_month_number = 2
Month 3 → payment_month_number = 3
```

After the configured finite duration, the normal commission stops.

18. Commission Calculation Service

Recommended service:

```
ProjectUserCommissionService
```

Responsibilities should include:

```
validateContributor()
checkEmployeeEligibility()
resolveActAsRole()
resolveCommissionConfiguration()
resolvePaymentDate()
calculateCommissionBase()
calculateCommission()
createCommissionSchedule()
createCommissionSummary()
```

Business rules must remain in the Service layer rather than controllers.

19. Commission Calculation Sequence

```
1. Receive cleared payment
2. Resolve project
3. Resolve project teams
4. Resolve contributors
5. Check probation/eligibility
6. Resolve Act As Role
7. Resolve commission configuration
8. Resolve allocation method
9. Resolve applicable payment/base amount
10. Apply Office Expense
11. Calculate commission/allocation
12. Resolve duration from payment date
```

```
13. Create commission detail records
14. Update commission summary
```

20. Commission Summary

Suggested Table

```
project_user_commission_summaries
```

Suggested Columns

```
id
emp_id
user_id
project_id
team_id
designation_id
total_amount
paid_amount
pending_amount
status
last_payment_date
created_at
updated_at
```

The detail table stores calculation-level records; the summary table stores aggregate payment/status information.

21. Lifetime Commission

For a designation configured as:

```
Duration = Lifetime
```

the system must not create a fixed three-month stop date.

Each cleared client payment is evaluated against the lifetime configuration.

22. Finite Commission Duration

For a designation configured as:

```
Duration = 3 Months
```

the payment's commission period is measured from the applicable client payment received/cleared date.

When the configured period ends:

```
Normal Commission Stops
```

The implementation must not use Project Start Date as the commission-duration reference.

23. Phase 10 - Provident Fund Rule

PF maturity/eligibility time is dynamic.

Suggested Table

```
pms_provident_fund_rules
```

Suggested Columns

```
id
maturity_years
status
effective_from
effective_to
created_at
updated_at
```

Example:

```
maturity_years = 4
```

Management may later change it to another value.

24. PF Role Percentage Configuration

PF percentage is dynamic per designation.

Suggested Table

```
pms_provident_fund_role_rules
```

Suggested Columns

```
id
designation_id
percentage
status
effective_from
effective_to
created_at
updated_at
```

Example:

```
PM      = 2.75%
Manager = 3%
Writer  = 2%
Closer  = 2.5%
```

These are configuration examples only.

25. PF Role Percentages Do Not Need to Total 100%

Management independently sets the PF percentage for each role.

The system must NOT enforce:

```
Total PF Role Percentage = 100%
```

No such business rule is confirmed.

26. PF Source Amount

For finite-duration commission roles such as Writer, Sales/Approval, and Closer:

```
Commission Period
      ↓
Commission Stops
      ↓
Stopped Commission Amount
      ↓
Role-Based PF Percentage
      ↓
PF Amount
```

Formula:

```
PF Amount
=
Applicable Stopped Commission Amount × Configured PF %
```

27. PF Detail Table

Suggested Table

```
project_user_provident_funds
```

Required Columns

```
id
emp_id
designation_id
project_id
amount
user_id
team_id
fiscal_month
created_at
updated_at
```

This stores employee/project/team/role-level PF accrual records.

28. PF Summary Table

Suggested Table

```
project_user_provident_fund_summaries
```

Required Columns

```
id
emp_id
designation_id
user_id
total_amount
payment_amount
status
payment_percent
payment_date
created_at
updated_at
```

This represents the employee-level PF summary and disbursement state.

29. PF Calculation Sequence

```
1. Detect finite commission period completion
2. Identify stopped commission amount
3. Resolve employee/designation/project/team
4. Resolve PF role percentage
5. Calculate PF
6. Save PF detail
7. Aggregate PF summary
8. Calculate Company EPS from the remaining balance
9. Calculate PF maturity/eligibility date
```

30. Company EPS

After PF calculation, the balance that remains after PF allocation is saved as Company EPS.

Formula:

```
Company EPS
=
PF Source Amount - Total PF Amount Allocated
```

Suggested Table

```
project_team_company_eps
```

Suggested Columns

```
id
project_id
team_id
fiscal_month
source_amount
pf_amount
eps_amount
created_at
updated_at
```

The record must preserve project-wise and team-wise EPS information.

31. PF Maturity

When Management configures:

```
PF Maturity = 4 Years
```

the system calculates the applicable maturity/eligibility date using the approved PF start reference.

The number of years must be configuration-driven and never hard-coded.

32. Employee Leaves Before Maturity

If an employee leaves before PF maturity:

```
Employee Leaves
      ↓
Check PF Eligibility
      ↓
Not Matured
      ↓
Management Decides Disbursement Amount
      ↓
Manual PF Payment
```

The employee is not automatically paid the full accumulated PF amount.

33. PF Manual Disbursement

Management manually decides the disbursement amount.

The system should capture at least:

```
payment_amount
payment_percent
payment_date
status
```

Example:

```
Total PF = $10,000
Management Payment = $7,000
Remaining PF = $3,000
```

The remaining balance stays available for future management action unless a final business rule says otherwise.

34. PF and Company EPS Flow

```
Stopped Commission Amount
        ↓
Role-Based PF %
        ↓
PF Amount
        ↓
Total PF Allocation
        ↓
Remaining Balance
        ↓
Company EPS
```

```
         ↓
Save Project + Team Wise
```

35. Multiple Projects and PF

An employee assigned to multiple projects must have separate project-level commission and PF tracking.

Example:

```
Employee = Rahim

Project A → PM
Project B → Manager
Project C → Salesperson
```

Each project is independently evaluated and stored using its own project/team/role relationships.

36. Historical Configuration Rule

Historical records must not be recalculated automatically when Management changes future configuration.

This applies to:

```
Commission %
Commission Duration
Office Expense %
Fixed Allocation %
PF %
PF Maturity Years
```

Calculation records should preserve the values used at calculation time where required for audit/history.

37. Recommended API Groups

Commission Rules

```
GET    /commission-rules
POST   /commission-rules
PUT    /commission-rules/{id}
DELETE /commission-rules/{id}
```

Office Expense

```
GET    /office-expense-rules
POST   /office-expense-rules
PUT    /office-expense-rules/{id}
DELETE /office-expense-rules/{id}
```

Teams

```
GET    /projects/{project}/teams
POST   /projects/{project}/teams
GET    /projects/{project}/teams/{team}
PUT    /projects/{project}/teams/{team}
DELETE /projects/{project}/teams/{team}
```

Team Members

```
POST   /projects/{project}/teams/{team}/members
PUT    /projects/{project}/teams/{team}/members/{member}
DELETE /projects/{project}/teams/{team}/members/{member}
```

Commission

```
GET /projects/{project}/commissions
GET /projects/{project}/commissions/summary
GET /users/{user}/commissions
```

PF

```
GET  /provident-fund/rules
POST /provident-fund/rules
GET  /provident-fund/roles
```

```
POST /provident-fund/roles
PUT  /provident-fund/roles/{id}
GET  /provident-funds
GET  /provident-funds/summary
POST /provident-funds/{id}/disburse
```

Exact endpoints must follow existing PMS routing conventions.

38. Frontend Implementation Plan

Project Team Screen

Fields:

```
Project
Team Name
BD Team Count
Development Team Count
```

Count changes dynamically generate member sections.

Contributor Screen

Each contributor contains:

```
Designation
User
Commission Percentage
Duration
Duration Type
```

Designation must load from the existing Designation List.

Fixed Allocation Screen

Management configures:

```
Designation / Role
Allocation Percentage
```

Example:

```
Manager = 50%
PM = 20%
Writer = 15%
Closer = 15%
```

Commission Screen

Provide:

```
Designation
Commission %
Duration
Duration Type
Status
```

Office Expense Screen

Provide dynamic Office Expense percentage configuration.

PF Screen

Provide:

```
PF Maturity Years
Designation
PF Percentage
Status
```

PF Disbursement Screen

Show:

```
Employee
Project
Team
Total PF
Eligible Date
Payment Amount
Payment Percentage
Status
Payment Date
```

Management enters the payment amount manually.

39. Backend Service Structure

Recommended services, subject to existing architecture:

```
ProjectTeamService
ProjectTeamMemberService
CommissionRuleService
OfficeExpenseRuleService
ProjectCommissionService
ProjectUserCommissionService
ProvidentFundRuleService
ProvidentFundService
CompanyEpsService
```

Reuse existing equivalent services when available.

40. Database Transaction Safety

Financial calculations that create multiple related records should run inside a database transaction.

Example:

```
DB Transaction
    ↓
Commission Detail
    ↓
Commission Summary
    ↓
PF Detail
    ↓
PF Summary
    ↓
EPS Record
    ↓
Commit
```

On failure:

```
Rollback
```

This prevents partial financial records.

41. Duplicate Commission Prevention

The system must prevent the same client payment from creating duplicate commission records.

A unique business reference must be identified using the existing payment architecture.

Potential identifying dimensions include:

```
payment_reference
project_id
user_id
team_id
designation_id
payment_month_number
```

The final unique key must be confirmed against the existing payment structure before migration.

42. Validation Plan

Team

Validate:

```
project_id exists
team_name required
team_type valid
team_count valid
```

Team Member

Validate:

```
team_id exists
project_id exists
user_id exists
designation_id exists
```

Commission

Validate:

```
Payment is cleared
Employee is eligible
Commission configuration exists
Duration is valid
Percentage is valid
```

Fixed Allocation

Validate:

```
Allocation percentage >= 0
Allocation percentage <= 100
```

The final rule for whether all role allocation percentages must total exactly 100% should follow the approved team-budget configuration rule.

PF

Validate:

```
PF role rule exists
PF percentage is valid
Disbursement amount does not exceed available eligible balance
```

Do NOT validate that all PF role percentages total 100%.

43. Testing Plan

Project / Team

Test:

```
Create project team
Dynamic member fields
Multiple teams
Multiple employees
Multiple employees in same designation
```

```
One employee in multiple projects
Cross-team assignment
```

Commission

Test:

```
Probation employee
Eligible employee
Payment cleared trigger
3-month commission
Lifetime commission
Multiple contributors
Multiple projects
Office Expense
Historical configuration
Duplicate payment prevention
```

Fixed Allocation

Test:

```
Team budget
Role percentage
Multiple members in same role
Equal distribution
Multiple roles
```

PF

Test:

```
Commission period ends
Role-based PF percentage
PF percentage not equal to 100% total
Multiple projects
Multiple members
PF maturity
Employee leaves before maturity
Management manual payment
Partial payment
Full payment
Company EPS
Project/team-wise EPS
```

44. Recommended Development Order

Phase 1 - Audit Existing System

```
Existing Project Module
Existing Designation Module
Existing User/Employee Module
Existing Payment Flow
Existing Team Module
Existing Permission System
Existing Finance/Configuration Pattern
```

Phase 2 - Configuration

```
Commission Rules
Office Expense Rules
PF Maturity Rule
PF Role Rules
```

Phase 3 - Team Management

```
Project Team
Project Team Members
Designation / Act As Role
Multiple Project Assignment
```

Phase 4 - Allocation

```
Percentage Commission
Fixed Team Allocation
Role Percentage
Equal Member Distribution
```

Phase 5 - Commission Engine

```
Payment Cleared Trigger
Commission Base
Office Expense
Commission Schedule
Commission Detail
Commission Summary
```

Phase 6 - PF Engine

```
Commission End Detection
PF Calculation
PF Detail
PF Summary
Company EPS
```

Phase 7 - PF Management

```
PF Maturity
Employee Exit Before Maturity
Manual Disbursement
Disbursement History
```

Phase 8 - QA / Reporting

```
Permissions
Audit
Reports
Regression Testing
Financial Consistency Testing
```

45. Recommended Migration Order

Before creating migrations, inspect current schema and reuse existing structures wherever possible.

Suggested order:

```
1. pms_commission_rules
2. pms_office_expense_rules
3. pms_project_teams
4. pms_project_team_users
5. pms_provident_fund_rules
6. pms_provident_fund_role_rules
7. project_user_commissions
8. project_user_commission_summaries
9. project_user_provident_funds
10. project_user_provident_fund_summaries
11. project_team_company_eps
```

46. Critical Implementation Rules

Rule 1 - Designation

Act As Role must use the existing Designation List.

Rule 2 - Multiple Projects

One employee can be assigned to multiple projects.

Rule 3 - Multiple Same-Role Contributors

Multiple employees may share the same Act As Role.

Rule 4 - Fixed Allocation

Fixed Team Allocation is percentage based.

Rule 5 - Equal Distribution

A role’s fixed allocation is equally divided among eligible employees in that role.

Rule 6 - Payment Trigger

Commission begins only after the client payment is received/cleared.

Rule 7 - Duration Reference

Finite commission duration is measured from the client payment date, not the project start date.

Rule 8 - Office Expense

Office Expense percentage is dynamic/configurable.

Rule 9 - PF

PF percentage is dynamic and designation based.

Rule 10 - PF Total

PF role percentages do not have to total 100%.

Rule 11 - PF Maturity

PF maturity years are dynamic/configurable.

Rule 12 - PF Disbursement

Management manually decides and disburses the amount.

Rule 13 - Company EPS

Remaining balance after PF allocation is saved as Company EPS.

Rule 14 - EPS Storage

Company EPS is stored project-wise and team-wise.

Rule 15 - Historical Data

Historical commission, allocation, PF, and EPS records must not change because future configuration changed.

47. Final Architecture Flow

```
ERP PROJECT
     ↓
PROJECT TEAM
     ↓
TEAM MEMBER
     ↓
DESIGNATION / ACT AS ROLE
     ↓
CLIENT PAYMENT CLEARED
     ↓
PAYMENT BASE
     ↓
OFFICE EXPENSE
     ↓
FINAL COMMISSION BASE
     ↓
```

```
ALLOCATION METHOD
     ├── Percentage Commission
     │        ↓
     │   Commission Detail
     │        ↓
     │   Commission Summary
     │
     └── Fixed Team Allocation
              ↓
        Role Allocation %
              ↓
        Equal Member Distribution
```

```
FINITE COMMISSION ENDS
     ↓
STOPPED COMMISSION AMOUNT
     ↓
PF ROLE %
     ↓
PF DETAIL
     ↓
PF SUMMARY
     ↓
COMPANY EPS
     ↓
PROJECT + TEAM
```

```
PF MATURITY
     ↓
MANAGEMENT REVIEW
     ↓
MANUAL DISBURSEMENT
     ↓
PF PAYMENT HISTORY
```

48. Final Implementation Principle

The implementation must keep these domains separate but connected:

```
ERP Project Management
        +
Payment Flow
        +
PMS Team Management
        +
Commission Configuration
```

```
        +
Commission Calculation
        +
Fixed Team Allocation
        +
Office Expense
        +
Provident Fund
        +
Company EPS
```

All configurable financial values must remain data-driven:

```
Commission %
Commission Duration
Office Expense %
Fixed Allocation %
PF %
PF Maturity Years
```

Backend remains the final source of truth for financial calculations.

No unconfirmed business rule may be implemented without Management approval.