User Stories for Time-Tracking System

User Story 1: Sign Up

As a new user (end user, freelancer, employee, manager, or owner),
I want to sign up and create my account,
So that I can access the platform securely.

Success Criteria

- User enters valid details (email/phone, password, role if required).
- System creates the account and sends confirmation (email/OTP).
- User receives a success message and can log in.

Failure Criteria

- If email/phone already exists → show "Account already exists."
- If password doesn't meet strength requirements → show error.
- If OTP/email verification fails → prevent account activation.

User Story 2: Login

As a registered user,
I want to log in using my credentials,
So that I can securely access my account.

Success Criteria

- User enters correct email/username and password.
- System authenticates and redirects to dashboard.
- Login session is created securely.

Failure Criteria

- If credentials are invalid → show "Incorrect username or password."
- If account is inactive/not verified → show "Please verify your account."
- If too many failed attempts → temporarily lock account.

User Story 3: Password Reset

As a user who has forgotten my password,
I want to reset it through a secure flow,
So that I can regain access to my account.

Success Criteria

- User clicks “Forgot Password.”
- System sends password reset link/OTP.
- User sets a new strong password.
- System confirms password reset and allows login.

Failure Criteria

- If email/phone is not registered → show “Account not found.”
- If OTP/link is expired/invalid → show error.

User Story 4: Archive a Project

FOC (User Story):
As a project manager, I want to archive completed projects so that my active project list remains clean.

BOC (Acceptance Criteria):
✅ **Success:**

- User selects completed project.
- System archives project and hides from active view.
- Data still available in archived reports.

❌ **Failure:**

- Project not found → "Project does not exist."
- Already archived → "This project is already archived."
- Unauthorized → "You do not have permission to archive."
- System error → "Failed to archive project. Retry later."

1. End-Users (Freelancers, Employees)

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Story 1. View Time Report

FOC:
As an employee, I want to view my weekly time report so that I can track productivity.

BOC:

- **Success:** Select week → system displays daily hours & project breakdowns.
- **Failure:**
  - Invalid week → "Week range is invalid. Select a valid week."
  - Access denied → "You cannot view another user’s report."
  - Report error → "Failed to generate report. Retry later."

Story 2. Apply for Leave

FOC:
As an employee, I want to apply for leave so that time is not tracked during my absence.

BOC:

- **Success:** User selects leave dates → system blocks tracking → confirmation sent.
- **Failure:**

  - Invalid dates → "End date must be after start date."
  - Overlapping leave → "You already have leave applied for these dates."
  - Permission denied → "You cannot apply leave on behalf of another user."
  - Network error → "Failed to apply leave. Retry later."

Story 3. Offline Time Tracking

FOC (User Story):
As a freelancer, I want my time to be tracked offline so that work is tracked even without the internet.

BOC (Acceptance Criteria):
✅ **Success:**

- Data stored locally.

- The system syncs automatically when online.

❌ **Failure:**

- Storage full → "Cannot save time entry. Clear storage."
- Sync conflict → "Offline log conflicts with online entry."
- Sync failed → "Failed to sync. Retry later."
- Unauthorized → "Offline logging disabled for your account."

Story 4. Apply for leave

FOC:
As an employee, I want to apply for leave so that time is not tracked during my absence.

BOC:

- **Success:** User selects leave dates → system blocks tracking → confirmation sent.
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  - Invalid dates → "End date must be after start date."
  - Overlapping leave → "You already have leave applied for these dates."
  - Permission denied → "You cannot apply leave on behalf of another user."
  - Network error → "Failed to apply leave. Retry later."

Story 7. Set Delay Alert

📌 2. Managers & Business Owners

Story 5. Assign a Task to a Team Member

FOC:
As a manager, I want to assign tasks to team members so that work is distributed efficiently.

BOC:

- **Success:** Select task → assign to member → set deadline → system notifies & updates status.
- **Failure:**
  - User not found → "The selected user does not exist."
  - Invalid deadline → "The deadline cannot be earlier than today."

- Already assigned → "This task is already assigned to [User]."
- Permission denied → "You do not have permission to assign tasks."

Story 6. Generate a Resource Utilization Report

FOC:
As a manager, I want to generate a resource utilization report to identify workload imbalances.

BOC:

- **Success:** Select date range & department → system aggregates & shows heatmap.
- **Failure:**
    - No data → "No time entries found for the selected period."
    - Invalid dates → "End date must be after start date."
    - Permission denied → "You do not have access to this data."
    - Timeout → "Failed to generate report. Retry later."

Story 7. Approve an Invoice

FOC:
As a client/manager, I want to approve invoices so that billing aligns with deliverables.

BOC:

- **Success:** Review invoice → approve → system marks as approved & sends email.
- **Failure:**
    - Invoice not found → "Invoice does not exist."
    - Unverified entries → "Approve only verified time entries."
    - Duplicate approval → "Invoice already approved."
    - Network error → "Failed to approve invoice. Retry later."

Story 8. Generate an Invoice

FOC:
As billing staff, I want to generate invoices so clients receive accurate charges.

BOC:

- **Success:** Select project → choose time entries → system calculates & drafts invoice.
- **Failure:**
  - No entries → "At least one time entry must be selected."
  - Invalid rate → "Billing rate must be positive."
  - Tax error → "Tax rate not applicable for this client."
  - Missing payment → "Client has no payment method on file."

Story 9. Set a Delay Alert

FOC:
As a manager, I want to set alerts for task delays so I can address bottlenecks.

BOC:

- **Success:** Select task → set deadline → enable alert → system notifies if delayed.
- **Failure:**
  - Task not assigned → "Cannot set alert for unassigned task."
  - Invalid alert time → "Alert must be before deadline."
  - Duplicate alert → "Alert already exists for this task."
  - System offline → "Failed to set alert. Retry later."

Story 10. Allocate Resources

FOC:
As a team lead, I want to allocate resources to projects based on capacity.

BOC:

- **Success:** Select team members → assign hours → system updates workload.
- **Failure:**

- Overbooking → "Member is over-allocated by [X] hours."
- Invalid member → "Selected team member has no capacity."
- Inactive project → "Cannot allocate to inactive project."
- Permission denied → "You do not have permission."

Story 11. Provide Feedback on Service

FOC:
As a client, I want to provide feedback on service delivery to improve collaboration.

BOC:

- **Success:** Submit feedback form → system stores & notifies team.
- **Failure:**
  - Empty form → "Provide rating and comments."
  - Duplicate → "Feedback already submitted."
  - Invalid rating → "Rating must be between 1–5."
  - Network error → "Failed to submit feedback."

Story 12. Reconcile Time Entries

FOC:
As billing staff, I want to reconcile time entries with invoices to prevent billing errors.

BOC:

- **Success:** Select invoice → match time entries → system highlights differences.
- **Failure:**
  - Hours mismatch → "Invoice hours do not match logged hours."
  - Already reconciled → "Invoice already reconciled."
  - Entry not found → "Time entry not found."

- Unauthorized → "You cannot edit this invoice."

Story 13. Monitor Real-Time Progress

FOC:
As a manager, I want dashboards to track project milestones in real time.

BOC:

- **Success:** View dashboard → system updates instantly with logged time.
- **Failure:**
  - No projects → "You are not assigned to any projects."
  - Timeout → "Failed to load dashboard. Refresh."
  - Permission denied → "You do not have access."
  - Data inconsistency → "Contact support."

. Project Budget Tracking

FOC (User Story):
As a manager, I want to track project budgets so that expenses stay under control.

BOC (Acceptance Criteria):
✅ **Success:**

- Manager sets budget for a project.
- System tracks logged hours × rate against budget.
- Alerts sent when nearing budget limit.

❌ **Failure:**

- Invalid budget → "Budget must be a positive amount."
- No rate defined → "Set billing rate before budget tracking."
- Budget exceeded → "Project budget has been exceeded."
- Permission denied → "You cannot modify project budget."

📌 3. Developer Team & System Administrator

Story 14. Configure Role-Based Access

FOC:
As an admin, I want to configure role-based permissions to ensure data security.

BOC:

- **Success:** Select role → assign permissions → system saves & logs change.
- **Failure:**
    - Invalid role → "Role name cannot contain special characters."
    - Permission conflict → "Write cannot exist without reading."
    - Database error → "Failed to update permissions."
    - Unauthorized → "You cannot modify role permissions."

Story 15. Configure Role-Based Access

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As an admin, I want to configure role-based permissions to ensure data security.

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- **Failure:**
    - Invalid role → "Role name cannot contain special characters."
    - Permission conflict → "Write cannot exist without reading."
    - Database error → "Failed to update permissions."
    - Unauthorized → "You cannot modify role permissions."

Brainstorming

Documentation

Interviewing

Project managers

Story 1: Assign a Task to a Team Member

- **As a** project manager
- **I want** to assign tasks to specific team members with deadlines
- **So that** work is distributed efficiently and accountability is clear

Acceptance Criteria

- Given a task exists, when I assign it to a member and set a valid deadline, then the system should notify the member and update the task status.
- If the selected user does not exist, show `"The selected user does not exist."`
- If the deadline is earlier than today, show `"The deadline cannot be earlier than today."`
- If the task is already assigned, show `"This task is already assigned to [User]."`
- If I don't have permission, show `"You do not have permission to assign tasks."`

Story 2: Approve an Invoice

- **As a** client or project manager
- **I want** to review and approve invoices
- **So that** billing aligns with agreed deliverables

Acceptance Criteria

- Given an invoice exists, when I approve it, then the system should mark it as approved and notify relevant parties.
- If invoice not found, show `"Invoice does not exist."`
- If invoice contains unverified entries, show `"Approve only verified time entries."`
- If invoice is already approved, show `"Invoice already approved."`
- If network error, show `"Failed to approve invoice. Retry later."`

Story 3: Generate an Invoice

- **As a** billing staff member
- **I want** to generate invoices from approved time entries
- **So that** clients are billed accurately

Acceptance Criteria

- Given valid project and time entries, when I generate an invoice, then the system should calculate charges and draft the invoice.
- If no entries selected, show `"At least one time entry must be selected."`
- If billing rate invalid, show `"Billing rate must be positive."`
- If tax rule invalid, show `"Tax rate not applicable for this client."`
- If payment method missing, show `"Client has no payment method on file."`

Story 4: Set a Delay Alert

- **As a** project manager
- **I want** to set alerts for delayed tasks
- **So that** I can proactively address bottlenecks

Acceptance Criteria

- Given a task exists with deadline, when I set an alert, then the system should notify me if the task is delayed.
- If task unassigned, show `"Cannot set alert for unassigned task."`
- If alert time is after deadline, show `"Alert must be before deadline."`
- If duplicate alert exists, show `"Alert already exists for this task."`
- If system is offline, show `"Failed to set alert. Retry later."`

Story 5: Monitor Real-Time Progress

- **As a** manager
- **I want** a real-time dashboard of project progress
- **So that** I can monitor milestones and adjust plans

Acceptance Criteria

- Given active projects exist, when I open dashboard, then the system should update instantly with new logged time.
- If no projects, show `"You are not assigned to any projects."`
- If timeout, show `"Failed to load dashboard. Refresh."`
- If no permission, show `"You do not have access."`
- If data mismatch, show `"Contact support."`

Story 6. Export Reports

- **As a** project manager
- **I want** to export reports (utilization, timesheets, progress) to Excel/PDF
- **So that** I can share them with stakeholders

Acceptance Criteria

- Select report → export format (PDF, CSV, XLSX)
- Error: `"Failed to export report."`

User Story 7: Manage Project Expenses Within Budget

- **As a** project manager
- **I want** to review and approve project-related expenses while tracking against the project budget
- **So that** only valid expenses are billed to clients and overall costs stay under control

Acceptance Criteria
Success:

- Manager sets a project budget (with billing rates defined)
- Team members log expenses and hours
- Manager reviews and approves/rejects each expense claim
- System updates budget utilization (hours × rate + expenses)
- Alerts are sent when budget limit is nearing or exceeded

Failure:

- Invalid budget amount → `"Budget must be a positive amount."`
- Missing billing rate → `"Set billing rate before budget tracking."`
- Expense already approved → `"Expense already approved."`
- Expense not found → `"Expense not found."`
- Budget exceeded → `"Project budget has been exceeded."`
- Permission denied → `"You cannot modify project budget."`