Functional requirements

1. **Employee and Project Management**
   1. The system shall allow the team manager to input details for all team members, including:
      * Working hours
      * Preferred programming languages
      * Specific technical skills
   2. The system shall enable the manager to define projects with attributes such as:
      * Required hours
      * Technology stack
      * Assigned team members
   3. The system shall display an updated status board showing:
      * Current employee utilization
      * Project progress percentages based on issued tasks.
      * Resource allocation summaries
2. **Issue Tracking**
   1. The system shall include an issue creation feature, enabling managers to log issues like:
      * Employee leave (vacation, reserve duty, etc.)
      * Project delays
   2. Each issue shall allow input fields for:
      * Problem description
      * Start and end dates
      * Associated employees and projects
3. **Gap Analysis and Resolution**
   1. The system shall analyze resource gaps caused by logged issues and provide:
      * Alternative team members to fill the gap based on predefined attributes (e.g., hours, skills, language compatibility).
      * Scenarios showing how changes impact overall project status.
   2. Employees shall have an interface to input their availability and preferences for addressing gaps. \*
4. **Interactive Scheduling**
   1. The system shall provide a graphical user interface (GUI) that allows the manager to:
      * Adjust employee allocations interactively.
      * Simulate project outcomes based on different employee assignments.
   2. The interface shall provide real-time feedback on:
      * Updated project timelines
      * Employee workload balances
5. **Reporting and Visualization**
   1. The system shall generate reports and dashboards that include:
      * Weekly employee workload summaries
      * Project performance metrics (e.g., adherence to schedules, milestones reached)
      * A visual representation of resource gaps and resolutions applied
   2. Reports shall be exportable in common formats (e.g., PDF, Excel). \*
6. **User Access and Security**
   1. The system shall provide role-based access control:
      1. Managers shall have full access to all features.
      2. Employees shall have restricted access, limited to:
         * Viewing their project assignments and schedules
         * Submitting availability and preferences
   2. All data shall be ~~encrypted and~~ securely stored to protect sensitive employee and project information.
7. **Notifications and Alerts**
   1. The system shall notify employees and managers via email or in-app notifications about:
      * Assigned tasks and changes in schedules
      * Pending issues and deadlines
   2. Configurable alerts shall be available for critical updates, such as:
      * Resource shortages
      * Project delays