"Business Process Automation" (BPA)

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What is BPA

- **Definition by World Technology Forum:**
  - Business Process Automation (BPA) is the technology-enabled automation of activities or services that accomplish a specific function or workflow. Business processes can be determined for many different segments of company activities, including sales, management, operations, supply chain, human resources and information technology.

- **Definition by Wikipedia:**
  - Business Process Automation (BPA) is the technology-enabled automation of business processes. It is performed to achieve digital transformation or to increase service quality or to improve service delivery or to contain costs. It consists of integrating applications, restructuring labor resources and using software applications throughout the organization.

About BPA

- A web application/portal that is built to maintain and analyze all the work done in company with few simple clicks.

- Automate the process which can generate Daily/Monthly/Quarterly/Yearly revenue report and other reports to give detail insight to the multiple stakeholders.

- This portal has role base and rule base access levels.

- Generate reports on real time basis:
  o Based on daily work carried out by the company.
  o Based on the profit they make per project.
  o More than 21 such types of report can be generated.

- Generated reports can then be saved as pdf file or can be mailed directly via SMS Portal (Company's intranet portal).

Need for BPA

- At present, the company was working on offline files(i.e. Excel sheets) for maintaining the project record and details.

- Sharing of the files was also required every time they make some change in the project or whatsoever.

- The company was in need to make everything available about the project to them on real time basis.

- Efficiency of any department and employee can easily be tracked and noted by the report generation portal.

- Scheduling of projects within the company can be done easily with the help of this portal.

Project Plan

		Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names
0			▲ **Business Process Automation**	**88 days**	**Mon 18-12-17**	**Fri 13-04-18**		
1	✔	📌	**Feasibility Study**	2 days	Mon 18-12-17	Tue 19-12-17		**Deployment Team**
2		📌	▲ **Requirement Gathering**	**5 days**	**Mon 25-12-17**	**Fri 29-12-17**	1	**Analyst**
3	✔		Questionnaire	2 days	Mon 25-12-17	Tue 26-12-17		Current Employees
4	✔		Survey	3 days	Wed 27-12-17	Fri 29-12-17		Current System
5	✔	📌	▲ **Planning and Analysis**	**3 days**	**Mon 01-01-18**	**Wed 03-01-18**	2	**Deployment Team**
6	✔		Hrs. Distribution	1 day	Mon 01-01-18	Mon 01-01-18	4	Analyst
7	✔		Work Distribution	1 day	Tue 02-01-18	Tue 02-01-18	6	Analyst
8	✔		Resource Allocation	1 day	Wed 03-01-18	Wed 03-01-18	7	Analyst
9		📌	▲ **Designing Phase 1**	**4 days**	**Thu 04-01-18**	**Tue 09-01-18**	5	**Deployment Team**
10			Models	4 days	Thu 04-01-18	Tue 09-01-18		

Project Plan Cont.

11			Understanding Current Scenario	2 days	Fri 05-01-18	Mon 08-01-18		
12			SQL Server Management	2 days	Sat 06-01-18	Tue 09-01-18		
13	✓		**Implementation and Coding Phase 1**	**15 days**	**Tue 09-01-18**	**Sat 27-01-18**	9	
14	✓		Module #1 New Entry	15 days	Tue 09-01-18	Sat 27-01-18		
15	✓		**Designing Phase 2**	**6 days**	**Mon 29-01-18**	**Mon 05-02-18**	13	**Deployment Team**
16	✓		Models	4 days	Mon 29-01-18	Thu 01-02-18		
17	✓		Understanding Current Scenario	2 days	Wed 31-01-18	Thu 01-02-18		
18	✓		SQL Server Management	3 days	Thu 01-02-18	Mon 05-02-18		
19			**Implementation and Coding Phase 2**	**16 days**	**Tue 06-02-18**	**Tue 27-02-18**	18	**Deployment Team**
20			Module #2 Daily Entry	15 days	Tue 06-02-18	Mon 26-02-18		

Project Plan Cont.

21	👤	📌	◢ **Designing Phase 3**	2 days	Wed 28-02-18	Thu 01-03-18	20	Deployment Team
22		🔷	Models	2 days	Wed 28-02-18	Thu 01-03-18		
23		📌	◢ **Implementation and Coding Phase 3**	5 days	Tue 27-02-18	Sat 03-03-18	22	Deployment Team
24	🔲	🔷	Module #3 Excel2DB	4 days	Wed 28-02-18	Sat 03-03-18		
25	👤	📌	◢ **Designing Phase 4**	6 days	Mon 05-03-18	Mon 12-03-18	24	Deployment Team
26		🔷	Models	5 days	Mon 05-03-18	Fri 09-03-18		
27	🔲	🔷	SQL Server Management	4 days	Wed 07-03-18	Mon 12-03-18		
28		📌	◢ **Implementation and Coding Phase 4**	16 days	Mon 12-03-18	Sat 31-03-18	27	Deployment Team
29	🔲	🔷	Module #4 Report Generation	15 days	Tue 13-03-18	Sat 31-03-18		
30	🔲	🔷	**Documentation**	10 days	Mon 02-04-18	Fri 13-04-18	29	

Requirements

- Software Requirements:
  - Visual Studios 2013 Ultimate.
  - .NET Framework 2.5
  - MYSQL Workbench.
  - SMS Portal(Company's intranet portal).

- Hardware Specification:
  - Windows OS 64-bit system, 8GB RAM, 1TB HDD.
  - Azure B+ OS(Linux Based), 64-bit system, 6GB RAM, 1TB HDD.
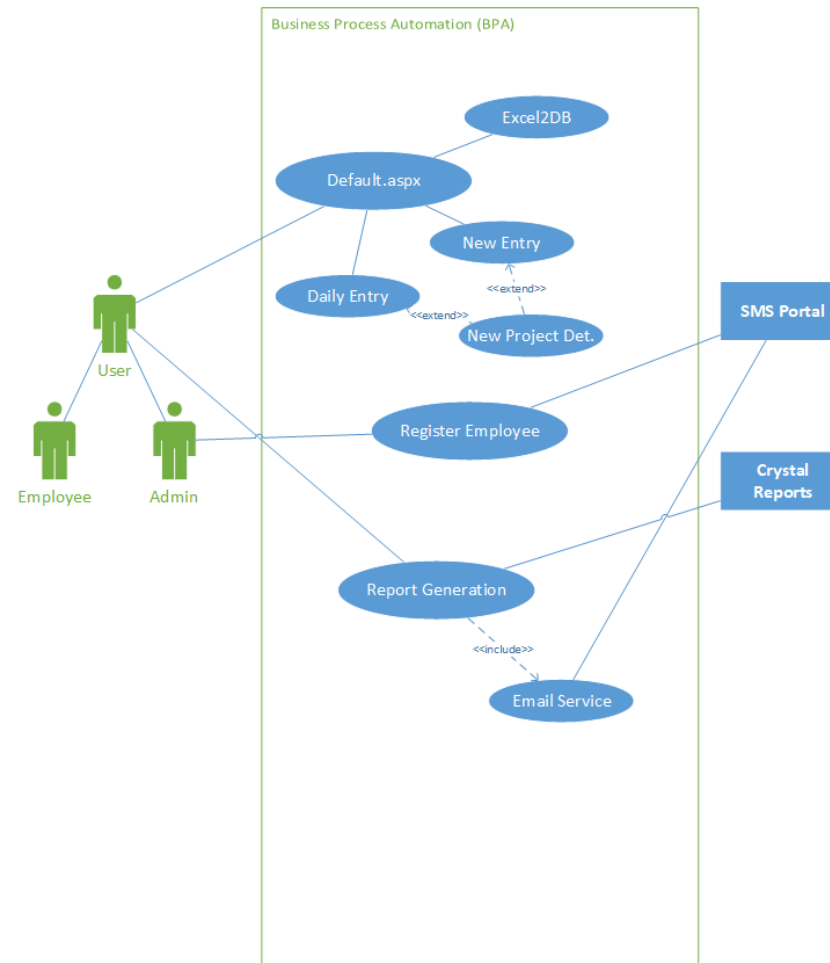
Functional Requirements*

- New Project Entry.
- Daily Work Entry.
  - By Employee ID
  - Per Project ID
- New Project Details.
  - If not only present.
- Excel 2 DB.
  - Connection String.
  - Sheet name in Excel file.
  - Database name to enter to.
- Report Generation.
  - 21 different types of report on real time basis.

*New Modules may add up further as per requirement.
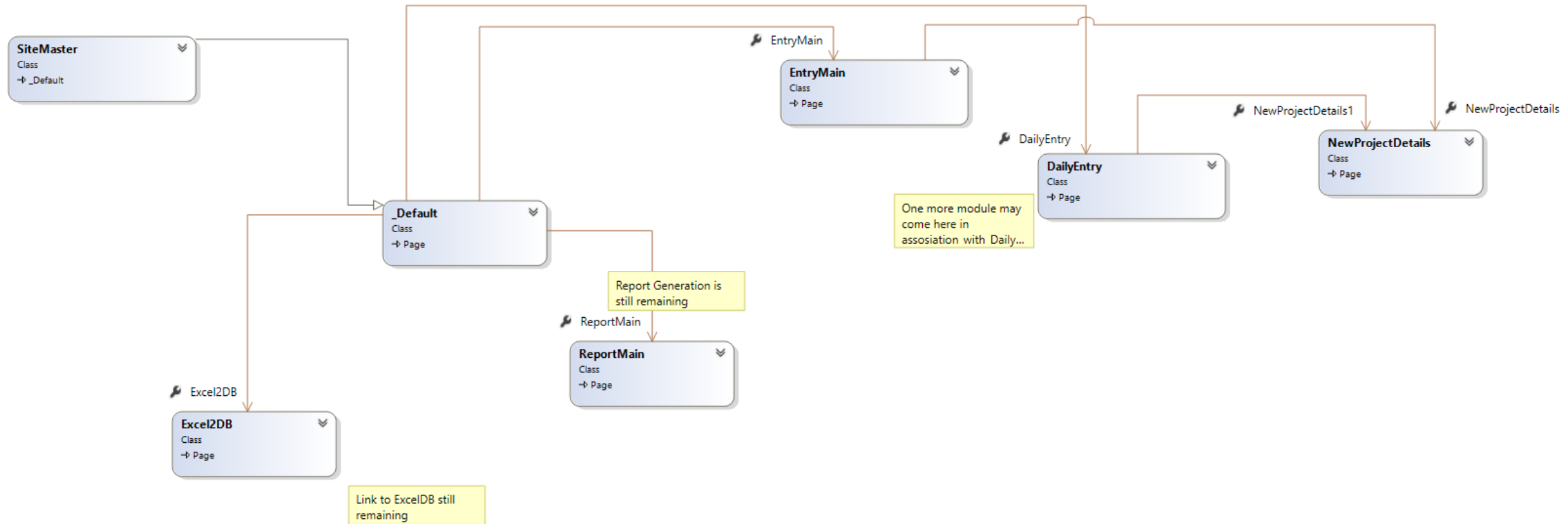
Non - Functional Requirements

- Reliability.
- Efficiency.
- Security.
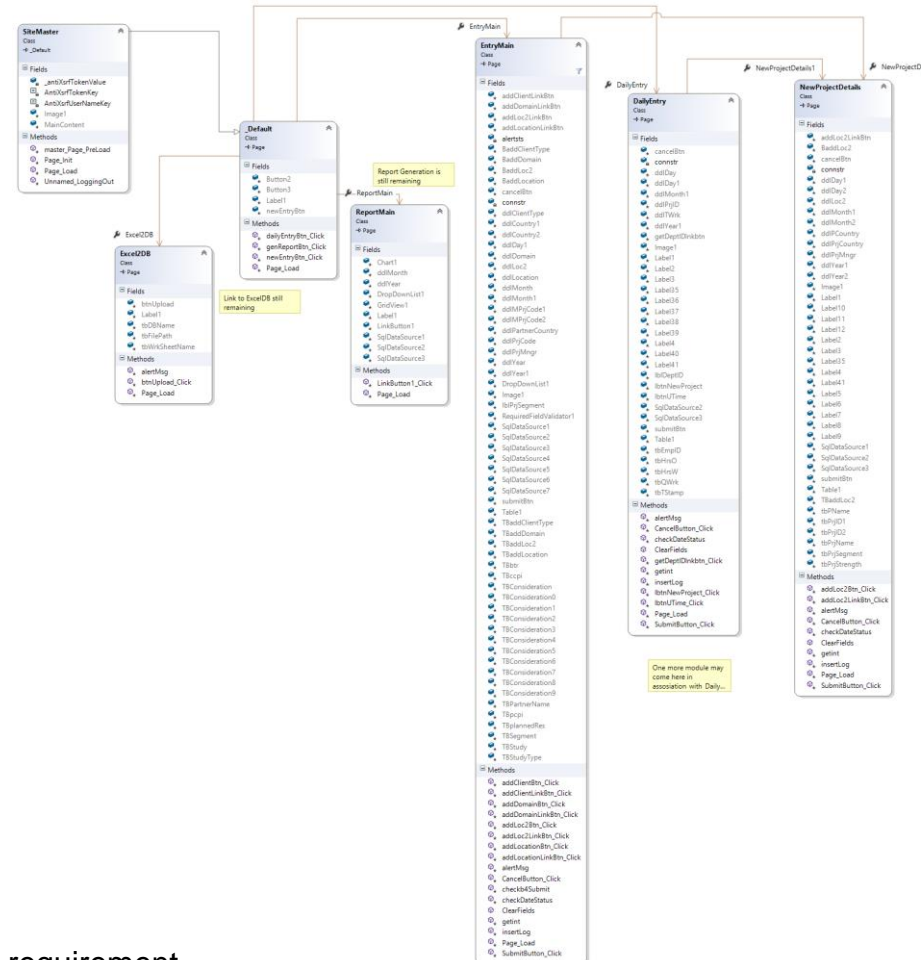- Availability.
- Portability.

Use Case*

*New Modules may add up further as per requirement.
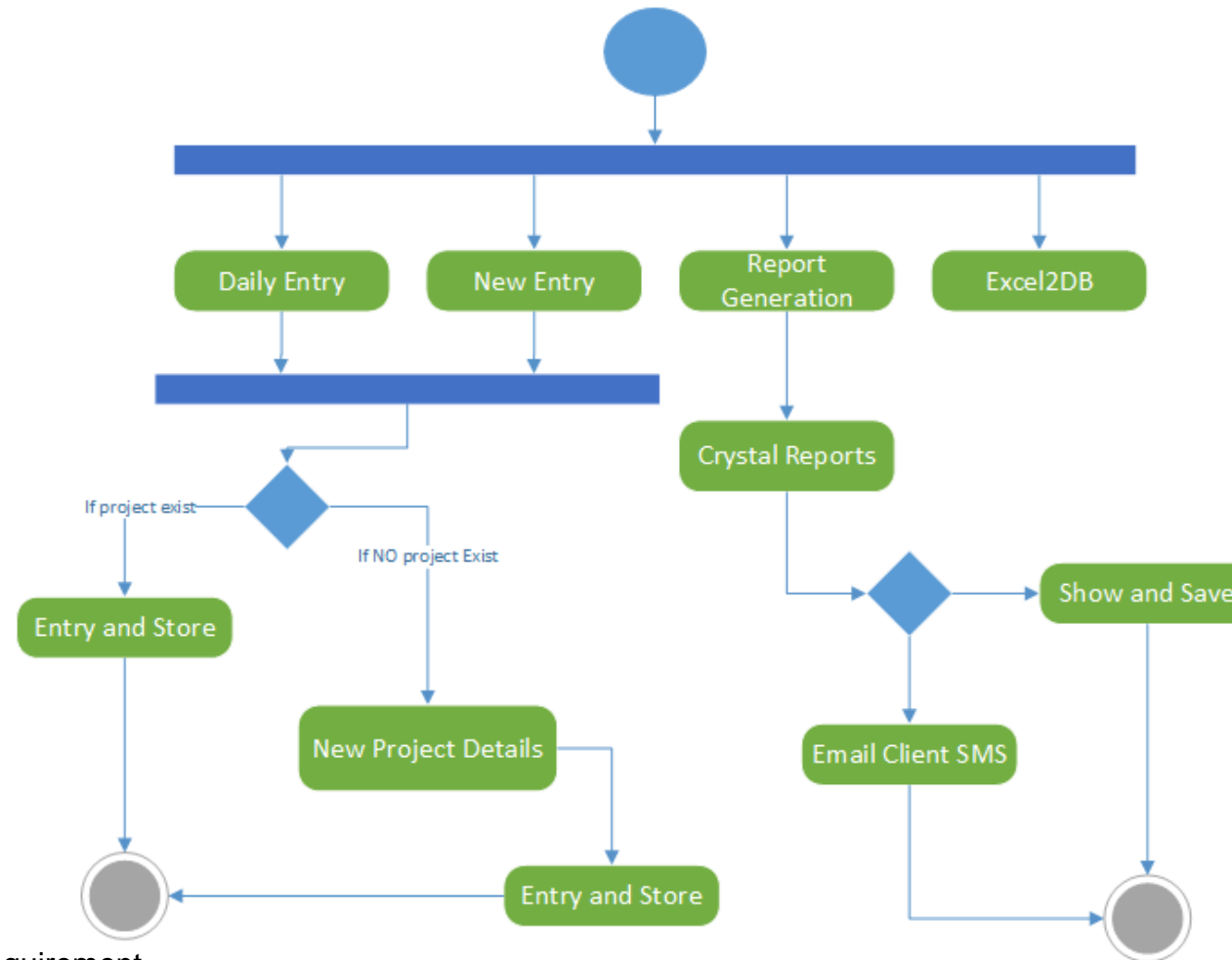
Class Diagram* Shortened
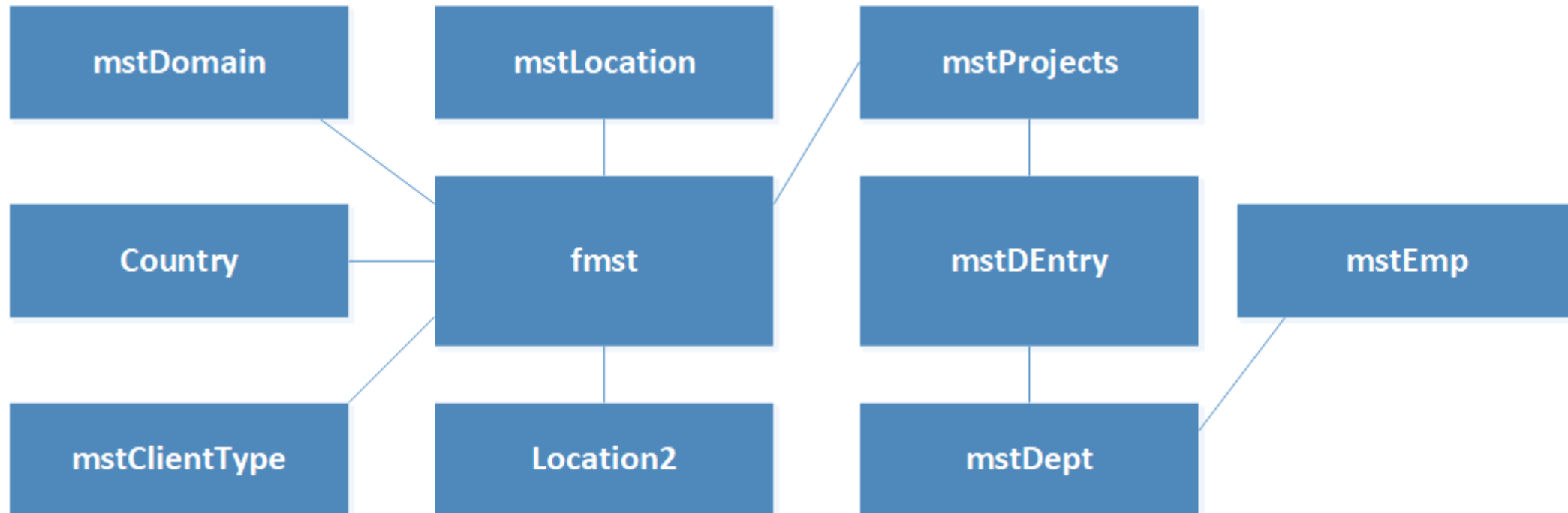

*New Modules may add up further as per requirement.

Class Diagram* Extended

*New Modules may add up further as per requirement.
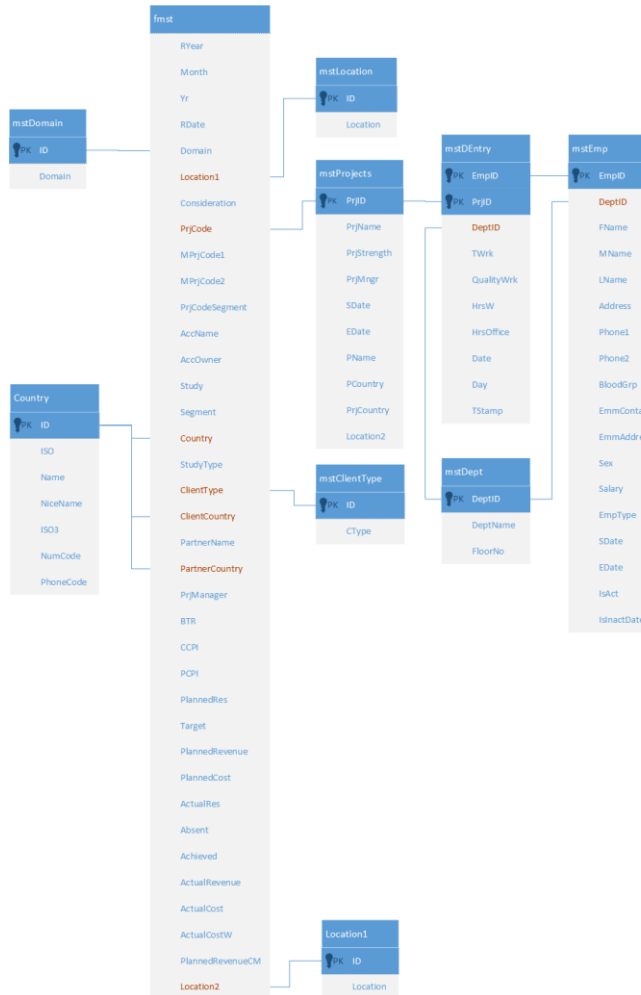
Activity Diagram*

*New Modules may add up further as per requirement.

ER Diagram* Shortened

*New Modules may add up further as per requirement.

ER Diagram* Extended

*New Modules may add up further as per requirement.

Conclusion

- It is a web based portal that will help the company to automate every single process carried out in the company.

- From sharing excel files to creating new project on company's portal will be handled by the BPA portal itself.

- It has the capability to merge with current portal for communication i.e. SMS Portal on company premises.

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THANK YOU !