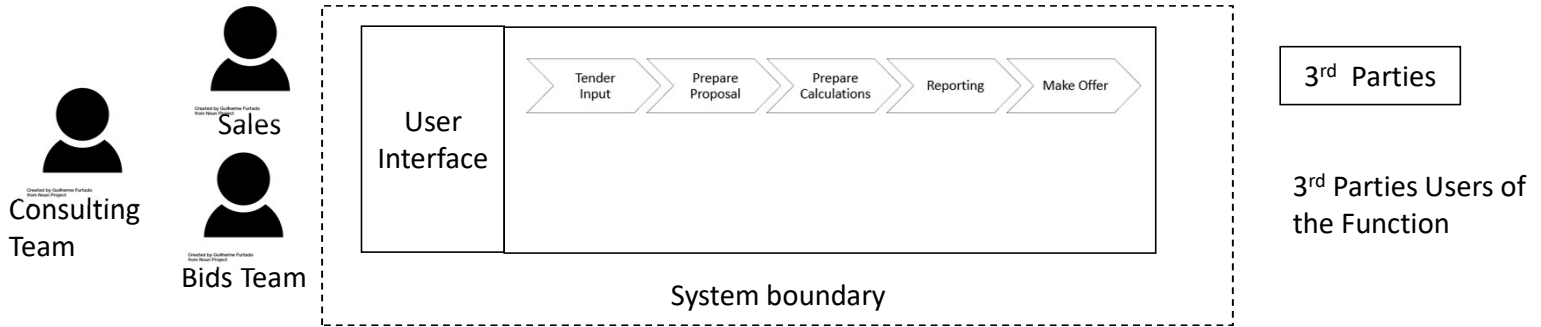


Bid and Proposals Management System

Context | Scope | RFP Format | Requirements | Entities | Significant scenarios | Technical Debt | Next Steps

Business Context : Bid and Proposals System

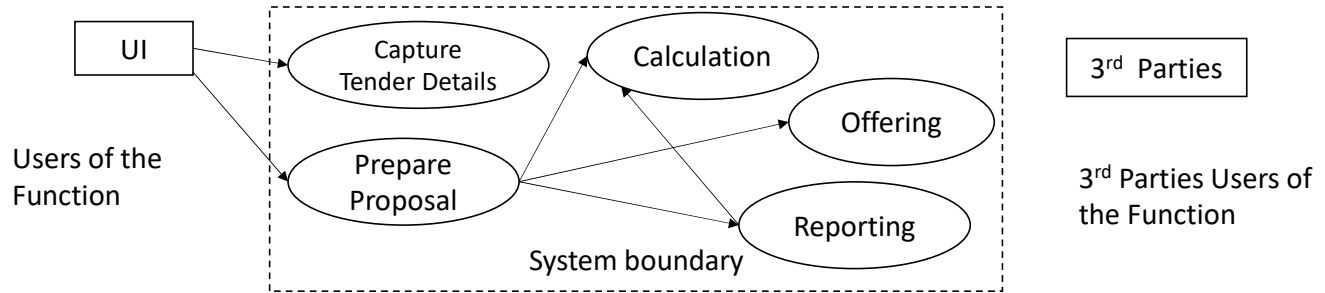


Bid and Proposal Management System

The Request For Proposal is prepared by the organization raising the tender. The Sales, Consulting and Bids Team work together to make the best bid for the Request. The objective of the Sales Team is to win the bid. The bids team focus is on rightly pricing it, while sales engineer collects the initial data and the consulting team is focused on supporting them to succeed with the bid.

The details are stored and associated with a RFPID. We start preparing a proposal with details of base case and additional details of Revenue, tax, Expenses and Calculate the possible values of NPV and IRR for the project. Positive NPV in 3 years indicates high probability of project success. Multiple proposals are prepared with different combinations and calculations done. The best is selected. The Comparison report shows the comparison across proposals. It is left for us to select one Proposal.

Scope Diagram : Object Process Model



Bid and Proposal Management System

Tender is identified and details are collected. These include

1. Request For Proposal is prepared
2. Details could include Location, Department and Types of Functions to be supported.
3. Acceptance criteria

The details are stored and associated with a Tender Identification Number.

We start preparing a proposal with details of base case and additional details of Revenue, tax, Expenses and Calculate the possible values of NPV and IRR for the project. Positive NPV in 3 years indicates high probability of project success. Multiple proposals are prepared with different combinations and calculations done. The best is selected. The Comparison report shows the comparison across proposals.

It is left for us to select one Proposal.

Request for Proposal (RFP)

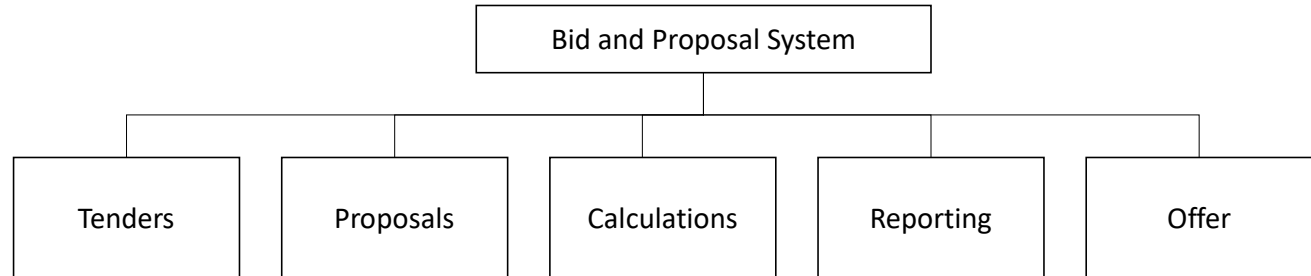
RFP: [Project Name]	Proposal Due By: [Date]	[Company Name]
Project Overview: [Insert Project Overview]		
Project Goals: <ul style="list-style-type: none">• Goal 1• Goal 2• Goal 3		
Scope of Work: [Describe Scope of Work in Greater Detail]		
Current Roadblocks and Barriers to Success <ul style="list-style-type: none">• Roadblock 1• Roadblock 2• Roadblock 3		
Evaluation Metrics and Criteria <ul style="list-style-type: none">• Criteria #1• Criteria #2• Criteria #3		
Submission Requirements <ul style="list-style-type: none">• Requirement #1• Requirement #2• Requirement #3		
Project Due By: [Enter Project Due Date]		Budget: [Amount]
Contact: [Enter Name]	Email: [Enter Email]	Phone #: [Enter Number]

Category	Requirement ID	Title	Description
Tenders	TID#1	Capturing Tender Details	<p>The users with role for entry shall be able to add tender details. The details include:</p> <ol style="list-style-type: none"> 1. Start Date 2. End Date 3. Subject 4. Description 5. Acceptance Criteria and weightage of each criteria 6. Tenderer Organization 7. Source or Reference <p>The details captured need to be stored for further steps.</p>
Proposal	PID#1	Prepare Proposal	<p>The proposal shall be prepared with the following details:</p> <ol style="list-style-type: none"> 1. Initial Investment 2. Base Case 3. Extended Case 4. Suppliers 5. Number of Years 6. Cash InFlow Per Year 7. Discount Rate <p>The state is in In Proposal Making state.</p>

Category	Requirement ID	Title	Description
Calculation	CLN#1	Calculate Net Present Value	Based on NPV Formula, Net Present Value is calculated taking inputs from: <ol style="list-style-type: none"> 1. Initial Investment 2. Number of Years 3. Cash InFlow Per Year 4. Discount Rate
Calculation	CLN#2	Calculate Internal Return Rate	Based on IRR Formula, Internal Return Rate is calculated taking inputs from: <ol style="list-style-type: none"> 1. Initial Investment 2. Number of Years 3. Cash InFlow Per Year
Calculation	CLN#3	Calculate of Tax	Based on Base case and extended case, the Initial Investment and returns the Tax aspects need to be calculated. This adds to the expenses.
Reporting	RPT#1	Report Generation to compare proposals	A Comparison report across the various proposals prepared is generated. The report include the ROI plots and number wise comparison across the proposals and a score which gives input on the selection and investment is viable.

Category	Requirement ID	Title	Description
Offer	OFF#1	Selecting a Proposal and mark it for ready to offer with notes	A proposal shall be selectable which can be staged into ready for offer. The proposal itself is further refined once ready for offer. This is discussed and notes taken from experts before final go to the tenderer. This might include approvals from department heads to go ahead with the same. This will include the key aspects making sense for the customer to choose the proposal.
Offer	OFF#2	Offer Ready and integrate the next steps to prepare a formal offer with communication aspects	<p>The offer point by point answers to the tender and goes into the details of base case and extended case and the pricing considerations including fixed price or time and material and kind of additional platform considerations which are some benefits unique for the organization to offer.</p> <p>Once offer is placed, the State needs to be updated as Offered.</p>

Key Entities - Identified









Of these Calculations seem to be more performance oriented and risky to make modifications in the future. In other Cases like tenders, proposals are data capture more and storage. All proposal selection and reporting might use some kind of calculation. Therefore we identify Calculation as a significant element.

It could as well depend on the architect's experience and background. If the architect is highly experienced in a calculation engine, possibly he/she might opt for looking at Reporting as one major element or Proposals and focus on the customer experience at these elements.

Step1: Initial Requirement

Aligned to Initial Commit in Git (below)

Requirement ID	#1
Title	Ability to perform Calculation for Net Present Value
Description	Net Present Value calculations needs to be performed. Inputs : Initial Investment, Discount Rate, FixedCashInFlow, Number of Years.
Background	Most of the business viability analysis of products or solutions or services are performed by looking at the NPV is positive. This is an indicator of the business turning to provide relevant results within a period. Mostly 3-5 years.
Acceptance criteria	The NPV Formula should be applied and based on provided inputs for the Input parameters the NPV value should be calculated.
Assumptions	First step we are looking at Fixed CashInFlow for every year.

- ☐  bin
- ☐  obj
- ☐  CalculationEngine.csproj
- ☐  ICalcuation.cs
- ☐  NPVCalculation.cs
- ☐  Program.cs

Initial commit



Abh4git committed 20 hours ago

















74533e0



Step 2: Initial Requirement - Updated

Requirement ID	#1
Title	Ability to perform Calculation for Net Present Value
Description	Net Present Value calculations needs to be performed. Inputs : Initial Investment, Discount Rate, FixedCashInFlow, Number of Years. Capability to support CashInFlow Changing across the years.
Background	Most of the business viability analysis of products or solutions or services are performed by looking at the NPV is positive. This is an indicator of the business turning to provide relevant results within a period. Mostly 3-5 years.
Acceptance criteria	The NPV Formula should be applied and based on provided inputs for the Input parameters the NPV value should be calculated.
Assumptions	CashInFlow can be fixed or changes for every year.

- ☐  CaculationEngine.Core
- ☐  CalculationEngine
- ☐  CalculationEngineConsole
- ☐  CalculationEngineUnitTests
- ☐  Calculations.Core
- ☐  CalculationEngine.sln
- ☐  CalculationEngine.csproj
- ☐  CalculationFactory.cs
- ☐  IRRCalculation.cs
- ☐  NPVCalculation.cs
- ☐  Entities
- ☐  Enums
- ☒  Interfaces
- ☐  Calculations.Core.csproj

Step2: New Requirement

Aligned to Merge pull request #1 in Git (below)

Requirement ID	#2
Title	Ability to perform Calculation for Internal Rate of Return
Description	Net Present Value calculations needs to be performed. Inputs : Initial Investment, Discount Rate, FixedCashInFlow, Number of Years.
Background	Most of the business viability analysis of products or solutions or services are performed by looking at the NPV is positive. This is an indicator of the business turning to provide relevant results within a period. Mostly 3-5 years.
Acceptance criteria	The NPV Formula should be applied and based on provided inputs for the Input parameters the NPV value should be calculated.
Assumptions	First step we are looking at Fixed CashInFlow for every year.

Merge pull request #1 from Abh4git/develop ...



Abh4git committed 19 minutes ago

Verified



57d085a



*Step3: New Requirement/ Address
Technical Debt*

Aligned to Merge pull request #1 in Git (below)

Requirement ID	#3 (Technical)
Title	Reduce Coupling between Classes. Refactoring Required.
Description	Lot of dependencies due to the calculation classes known to clients and directly instantiating them. The software needs to be able to handle many calculations. There is a need to extend the software.
Background	High Coupling creates a problem when we want to extend the application. This is a technical debt and needs to be fixed at the earliest.
Acceptance criteria	No direct instantiation of classes. Only Interfaces to be shared across.
Assumptions	Possible patterns of Factory and Singleton can be used.

Merge pull request #4 from Abh4git/develop ...



Abh4git committed 6 minutes ago

Verified



a8ae02b



Step4: New Requirement

Aligned to Merge pull request #1 in Git (below)

Requirement ID	#4
Title	Make Calculations API Public over HTTP as Services
Description	Net Present Value calculations needs to be performed. Inputs : Initial Investment, Discount Rate, FixedCashInFlow, Number of Years.
Background	Most of the business viability analysis of products or solutions or services are performed by looking at the NPV is positive. This is an indicator of the business turning to provide relevant results within a period. Mostly 3-5 years. Calculations needs to be exposed as API so that they can be used from a Business Website.
Acceptance criteria	The NPV Formula should be applied and based on provided inputs for the Input parameters the NPV value should be calculated.
Assumptions	First step is to get the Service Running and refining the service. How to test the service automatically also needs to be worked out. Selenium with Robo Framework.