Root Cause Analysis

*This root cause analysis template is an analytical framework to assist in the understanding of the root causes of an issue and and assists in determining corrective actions to prevent the issue in the future. After filling in the **Issue Information** section the remainder of the template is used in an iterative manner. Working through each section should trigger a deeper understanding of the other sections and will allow an iteratively deeper analysis. The analysis can be conducted either through direct authoring of the document or through a facilitated face to face sessions where the template will be completed after the fact.*

Discussion of this template is available at <http://use-cases.org>.

Issue Information

This information is static for the issue and should be historical fact or immutable information.

Title	
References	
Summary	
Occurrence Date	
Impact	
RCA Owner	

Technical Description

The technical description provides background on the technical root cause of the issue. The Technical Description should provide sufficient background that someone familiar with the technology, but not necessarily familiar with the architecture can understand what actually went wrong from a technical perspective. The assumption is that the technical root cause is fully understood, and any workaround or corrective action is in place.

Issue Narrative

The issue narrative is a textual description of the issue and how it occurred. The narrative is intended to ground the reader in the background, the issue and the impact. It can be a mix of timeline, external event and other descriptions of the issue.

Timeline

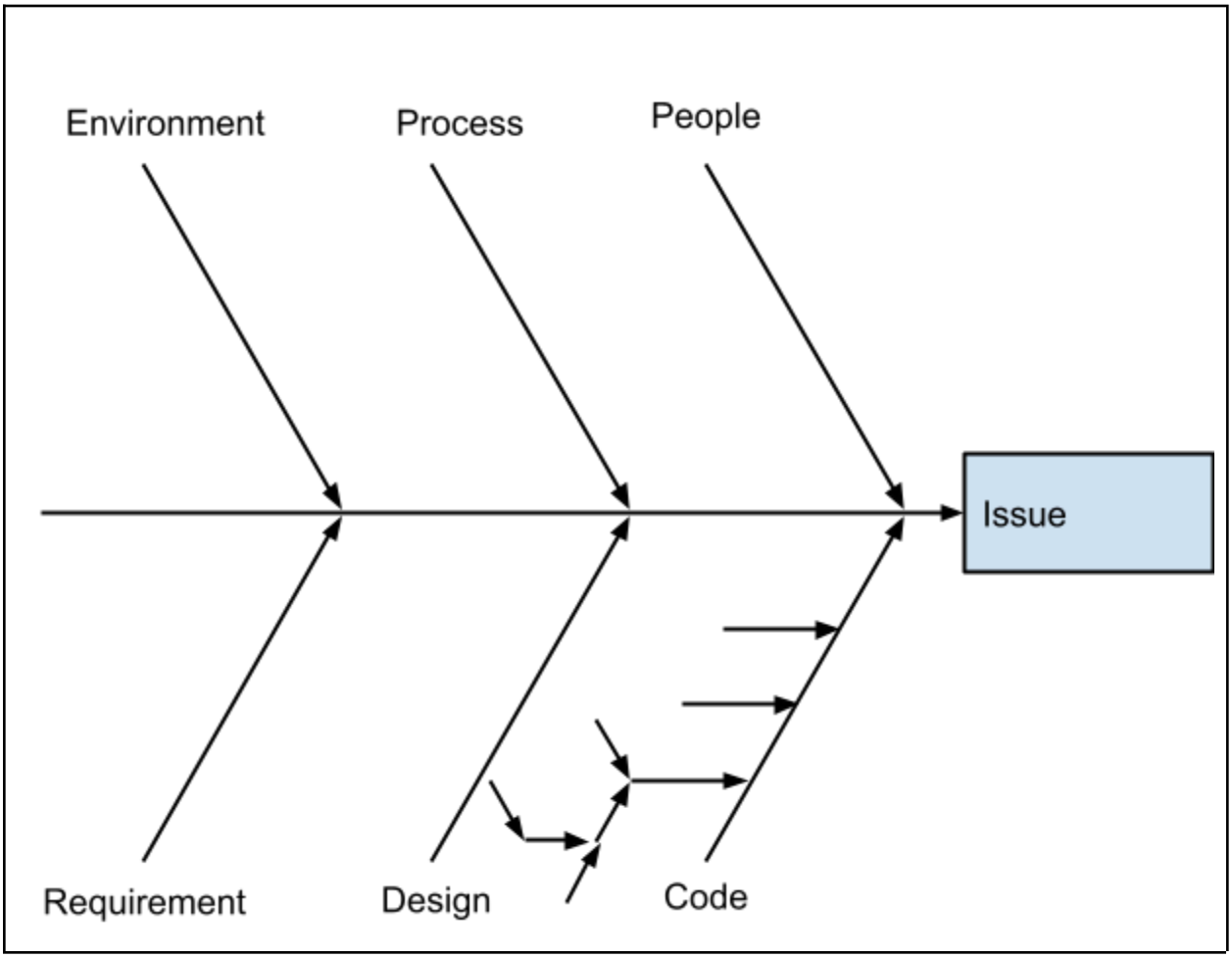
If appropriate include a timeline of events that occurring around this issue. Include any relevant points in time and the parties involved in that time. Granularity of the timeline is relative to the type of issue and granularity of supporting data.

Time	Involved Parties	Description

Modified Ishikawa Analysis

The analysis is recommended to be a mixture of a modified Ishikawa diagram and 5-Why style analysis. The factors presented have been modified from the traditional manufacturing factors to suit the software domain. Ensure that each factor is examined individually and that the 5-Why analysis remains correct both backwards and forwards. Use a whiteboard to draw and analyse and include an image in the document.

If the recommended analysis framework is not used, replace this section with the root cause method used.



Summary of Contributory Factors

After the analysis phase is complete, you should have a series of leading factors aligned across different themes. If using an Ishikawa diagram, the primary stems represent the sections, and each factor will typically be a terminal leaf node of the branches. Any other contributory factor discovered during analysis can also be included.

People

Factor	Description	Comments

Process

Factor	Description	Comments

Environment

Factor	Description	Comments

Requirement

Factor	Description	Comments

Design

Factor	Description	Comments

Code

Factor	Description	Comments

Other

Factor	Description	Comments

Corrective and Followon Actions

The analysis and summary above will generate a set of improvements or corrective actions to continue organizational improvement and prevent the issue or similar issues occurring in the future. The priority of a corrective should be forced ranked to drive appropriate actions. There may also be followon actions (remove workaround, update to production vs hotfix release,etc). These should be included in this table.

Pri	Owner	Description	Implementation Target