Research Question: What causes lead software development teams to incur TD?
Goal: Identify the list of causes of TD.
Expected Result: List of TD causes
Necessary Files:

   - Analysis_COUNTRY-NAME_Execution_Causes.xlsx
   - List of causes identified in InsighTD BR.docx
   - Analysis_COUNTRY-NAME_Execution_TDExample.xlsx

Analysis Procedure

This analysis considers the answers for the questions Q16 to Q19 of the questionnaire.

1. Two researchers should, individually, analyze each participant's answer (Tabs standardizationQ16 – Q19 | Analysis_COUNTRY-NAME_Execution_Causes.xlsx);

2. Identify the causes by directly copying the terms provided in the answers (due to standardization in the nomenclature, small adjustments can be made without changing their semantics) (Tabs standardizationQ16 – Q19);

3. Researchers should reach consensus on the identified causes (Tabs standardizationQ16 – Q19);

a. It is necessary to compare the identified list of causes with the list of causes identified in the InsighTD BR execution. The names of the final list should be based on the names of the InsighTD BR list of causes. If there is a new cause, it should be added to the end of the BR list in red color (List of causes identified in InsighTD BR.docx). This step is necessary to avoid many different nomenclatures for the same cause.

4. For tabs standardization Q16 – Q18, to identify the Type of TD associated with each cause, consider the type of debt identified in the file Analysis_COUNTRY-NAME_Execution_TDExample;

a. It is not possible to identify the type of debt for tab ALL Cited Critical Causes (Q19) because the causes in that tab are not necessarily associated with the example of TD item mentioned by the participant;

5. To count the number of times that each cause was cited, we just need to sum up the total number of citations of each of them. However, if a cause is cited twice by a participant, for example, if a participant cited a cause X in Q16 and cited it again in Q19, that cause should only be considered one time for that participant (Tabs ALL Cited Causes (Q16-Q18) AND ALL Cited Critical Causes (Q19)).

Example.

Table 1 exemplifies the steps 1 and 2 using an answer from participant of InsighTD BR:

Participants answers (Q16-Q19)	Causes - Researcher 1	Causes - Researcher 2	Consensus
Required infrastructure unavailable	Required infrastructure unavailable	Required infrastructure unavailable	Required infrastructure unavailable
Outdated technique	Outdated technique	Lack of knowledge	Lack of knowledge
Lack of team commitment	Lack of commitment	Lack of commitment	Lack of commitment
Lack of interest in acquiring knowledge	Lack of interest in acquiring knowledge	Lack of interest in acquiring knowledge	Lack of interest in acquiring knowledge
Delay in adopting more efficient technologies by the company	Delay in adopting more efficient technologies by the company	Required infrastructure unavailable	