

|                              | Identifier  | Risk<br>(Failure Mode)   | Objective/Benefits<br>Threatened                               | Subsystem   | Probability   | Damage (Consequence & Cost)  | Exposure   |
|------------------------------|-------------|--|--|---|---|--|--|
| Description                  | ID of entry | Brief description of the (product) risk, that is mode of failure             | Which cardinal objective or business benefit(s) is threatened? | Which part of the system is concerned (how much) with this objective/benefit, that is risk? | What is the likelihood of the system being prone to this mode of failure (that is risk)?<br>- Frequency of use<br>- Chance of failure:<br>criticality & complexity at implementation, criticality & complexity at usage, lack of quality      | What is the damage (consequence & cost) of this mode of failure?<br>- Consequence & cost for business<br>- Consequence & cost for test<br>- Consequence & cost for usage   | Risk exposure, that is product of <b>Probability</b> and <b>Consequence (Cost)</b> |
| Scores, Ranges, and Examples |             |  | For example:<br>Quality criteria                               | Scores from 1 to 5:<br>1 Very low importance<br>...<br>5 Highest importance                 | Scores from 1 to 5:<br>1 1-20% Highly unlikely, chances are slight<br>2 21-40% Unlikely, probably not<br>3 41-60% We doubt, improbable, better than ever<br>4 61-80% Probable, likely, we believe<br>5 81-99% Almost certainly, highly likely | Scores from 1 to 5:<br>1 Negligible: no noticeable effect<br>2 Low: business will be affected slightly<br>3 Moderate: business objectives will be affected<br>4 High: business objectives will be undermined<br>5 Critical: business objectives cannot be accomplished | Range between 1 and 25   |
|                              | 1           | Functional requirement   |  |   |   |  |  |
|                              | 2           | Non-functional requirement (NFR)   |  |   |   |  |  |
|                              | 3           | Quality criterion  |  |   |   |  |  |
|                              | 4           | Claim  |  |   |   |  |  |
|                              | 5           | Use case   |  |   |   |  |  |
|                              | 6           | Feature  |  |   |   |  |  |
|                              | 7           | Function   |  |   |   |  |  |
|                              | 8           | Epic   |  |   |   |  |  |
|                              | 9           | User story   |  |   |   |  |  |
|                              | 10          | Process  |  |   |   |  |  |
|                              | 11          | Service  |  |   |   |  |  |
|                              | 12          | API  |  |   |   |  |  |
|                              | 13          | Architectural decision   |  |   |   |  |  |
|                              | 14          | Design decision  |  |   |   |  |  |
|                              | 15          | Technology selection   |  |   |   |  |  |
|                              | 16          | 3rd party component selection (frameworks, open source, external partnering) |  |   |   |  |  |
|                              | 17          | Core asset in PLE  |  |   |   |  |  |
|                              | 18          | Open variant space in software ecosystems                                    |  |   |   |  |  |
|                              | 19          | Bug category   |  |   |   |  |  |
|                              | 20          | Risk   |  |   |   |  |  |
|                              | 21          |  |  |   |   |  |  |

|                              | Identifier  | Test Effectiveness  | Test Priority Number  | Test Objective(s)  | Test Level   | Test Technique   | Measurement  | Dependencies                             | Effort  | Timescale   | Reporting   |
|------------------------------|-------------|---|---|--|--|--|--|--|---|---|---|
| Description                  | ID of entry | How confident are the testers that they can address this risk?  | Product of <b>Probability</b> , <b>Consequence</b> , and <b>Test Effectiveness</b> that is product of <b>Exposure</b> and <b>Test Effectiveness</b> | What test objective will be used to address this risk?                                     | In which test level is this testing performed? By whom (person or group)?  | What method or technique is to be used in testing?     | How can the attainment of the threatened objective/benefit, that is the risk reduction or elimination be measured? | What do the testers assume or depend on? | How much effort is required to do this testing? | How much elapsed time is required to do this testing? | Objective/Benefit attained, that is risk reduced/eliminated         |
| Scores, Ranges, and Examples |             | Score from 1 to 5:<br>1 Testing is not the way to address this risk or an appropriate test objective would prove to be unachievable<br>...<br>5 High confidence that testing will find faults and provide evidence that the risk has been addressed | Range between 1 and 125   | For example:<br>demonstrate that...<br>verify that...<br>validate that...<br>check that... | For example:<br>unit testing<br>integration testing<br>system testing<br>acceptance testing<br><br>developers<br>integration test group<br>system test group | For example:<br>black-box testing<br>white-box testing | For example:<br>a measurement for a quality criterion<br>a test exit criterion                                     | For example:<br>a test entry criterion   | For example:<br>high<br>medium<br>low           | For example:<br>days<br>weeks<br>months               | Objective/Benefit not attained, that is risk not reduced/eliminated |
|                              | 1           |   |   |  |  |  |  |  |   |   |   |
|                              | 2           |   |   |  |  |  |  |  |   |   |   |
|                              | 3           |   |   |  |  |  |  |  |   |   |   |
|                              | 4           |   |   |  |  |  |  |  |   |   |   |
|                              | 5           |   |   |  |  |  |  |  |   |   |   |
|                              | 6           |   |   |  |  |  |  |  |   |   |   |
|                              | 7           |   |   |  |  |  |  |  |   |   |   |
|                              | 8           |   |   |  |  |  |  |  |   |   |   |
|                              | 9           |   |   |  |  |  |  |  |   |   |   |
|                              | 10          |   |   |  |  |  |  |  |   |   |   |
|                              | 11          |   |   |  |  |  |  |  |   |   |   |
|                              | 12          |   |   |  |  |  |  |  |   |   |   |
|                              | 13          |   |   |  |  |  |  |  |   |   |   |
|                              | 14          |   |   |  |  |  |  |  |   |   |   |
|                              | 15          |   |   |  |  |  |  |  |   |   |   |
|                              | 16          |   |   |  |  |  |  |  |   |   |   |
|                              | 17          |   |   |  |  |  |  |  |   |   |   |
|                              | 18          |   |   |  |  |  |  |  |   |   |   |
|                              | 19          |   |   |  |  |  |  |  |   |   |   |
|                              | 20          |   |   |  |  |  |  |  |   |   |   |
|                              | 21          |   |   |  |  |  |  |  |   |   |   |