Task #1

Create a risk matrix for testing on a project (see the given project description below)

Insurance company from USA builds a risk-assessment system for analytics team. Epam helps Team composition: 1 PM (B3 onsite), 1 BA (A2 onsite), 1 Key Dev (D3), 5 Devs (D1), 1 QA (L2), 1DQE (L1). Estimated project deadline is June 1, 2024 and is related to org changes in the customer Analytics team.

**Risk Assessment Matrix**

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| --- | --- | --- | --- |
| Likelihood/Impact | High Impact | Moderate Impact | Low Impact |
| Highly Likely | High | High | Medium |
| Likely | High | Medium | Low |
| Unlikely | Medium | Low | Low |

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| --- | --- | --- | --- | --- | --- |
| Risk # | Description | Likelihood | Impact | Risk Level | Mitigation Startegy |
| 1 | Insufficient human resources for the testing activity | High | High | High | Some testing activities may be automated which could significantly reduce the human resource requirements |
| 2 | Low test coverage leading to potential undiscovered bugs or issues | Medium | High | High | Use automated tools to improve testing coverage; allocate more time for exhaustive testing. |
| 3 | Limited time that can lead to rushed testing, which may result in not efficient testing | Medium | Medium | Medium | Improve project management & planning to give sufficient time for testing; adopt Agile methodologies. |
| 4 | Changing business requirements frequently | Low | Medium | Medium | Improve communication between stakeholders and the project team; document changes with sign-off. |
| 5 | Bugs Found Late In the Cycle | Medium | High | High | Perform early testing; use continuous testing methodologies. |
| 6 | Using untested new tools | Medium | Medium | Medium | Perform validation and verification testing on new tools before integrating with the project. |
| 7 | Having non reproducable bugs | Low | High | Medium | Use thorough and systematic bug reporting strategies that allow for more effective debugging. |
| 8 | Dynamic Environment Changes | Medium | Medium | Medium | Plan testing in a well-controlled environment; use containerization tools for consistency. |
| 9 | Insufficient Test Data | High | Medium | High | Use techniques of synthetic test data generation. |
| 10 | Inaccurate Test Estimation | High | High | High | Develop estimation skills through training; use industry standard techniques for better estimation. |
| 11 | QA team member leaving the project | High | Low | Medium | Cross-Training can be solution here, Ensuring that crucial skills are not held by only one person. |

| **Risk #** | **Description of Risk** | **Likelihood** | **Impact** | **Risk Level** | **Mitigation Strategies** |
| --- | --- | --- | --- | --- | --- |
| 1 | Unavailability of key development staff | Medium | High | High | Cross-training to handle personnel availability issues; have standby resources in place |
| 2 | Miscommunication between teams | Medium | Medium | Medium | Keep clear and open communication channels; regular meetings; use of project management tools |
| 3 | Insufficient testing time | Medium | High | High | Develop a well-organized testing schedule; prioritize testing activities according to their criticality |
| 4 | Incompatibility with existing system | Low | High | Medium | Conduct compatibility testing early in the development cycle; work closely with customer |
| 5 | Changes in organizational structure in the customer Analytics team affects project | High | Medium | High | Regular communication with customer; prepare flexible project plans |
| 6 | Scope creep due to changes in project requirements | Medium | High | High | Regular reviews of project requirements; clearly define project scope |
| 7 | Inadequate project planning leads to missed deadlines | Low | High | Medium | Detailed project planning; clearly define milestones and deliverables |
| 8 | Quality issues due to insufficient manpower in QA team | High | High | High | Hire additional QA staff if necessary; consider using automated testing tools |
| 9 | Delayed response or availability from onsite team | Low | Medium | Low | Reinforce communication protocols; consider overlapping work hours |
| 10 | Technical failures or software bugs | Medium | High | High | Implement robust testing practices and protocols; provide team with necessary tools and resources |