**Quizify – API Testing Project (Final Test Execution Report)**

**1. Project Information**

|  |  |
| --- | --- |
| **Field** | **Details** |
| **Project Name** | Quizify – Online Quiz & Certification System |
| **Testing Type** | API Testing using Postman |
| **Tester Name** | Mohammad Furqanuddin |
| **Testing Period** | 20 Oct – 24 Oct 2025 |
| **Environment** | Production (https://quiziify-backend.onrender.com/api) |
| **Frontend Reference** | https://quizify-phi.vercel.app |
| **Tools Used** | Postman v10+, Newman, Excel, MongoDB Atlas |

**2. Objective**

The objective of this testing phase was to:

* **Validate** all REST APIs of Quizify for functional accuracy and stability.
* **Ensure** correct JWT authentication and role-based authorization.
* **Test** positive, negative, and chained flows for User and Admin modules.
* **Record** results and defects for future enhancements.

**3. Test Environment**

|  |  |
| --- | --- |
| **Component** | **Details** |
| **Base URL** | https://quiziify-backend.onrender.com/api |
| **Database** | MongoDB Atlas |
| **Hosting** | Backend – Render / Frontend – Vercel |
| **Auth Type** | JWT Bearer Token |
| **Environments** | Local / Production |
| **Postman Collection** | Quizify\_API\_Collection.json |

**4. Test Execution Summary**

|  |  |
| --- | --- |
| **Metric** | **Count** |
| **Total APIs Tested** | 22 |
| **Positive Test Cases Passed** | 17 |
| **Negative Test Cases Passed** | 5 |
| **Total Test Cases Executed** | **22** |
| **Pass Rate** | 100%(22 / 22) |
| **Bugs Identified** | **6** (Open = 5, Fixed = 1) |
| **Automation Coverage** | $100% (Postman scripts + Chaining) |

**5. Module Wise Results**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Module** | **Total TCs** | **Passed** | **Failed** | **Pass %** |
| **Authentication** | 5 | 5 | 0 | 100% |
| **User** | 3 | 3 | 0 | 100% |
| **Quiz** | 3 | 3 | 0 | 100% |
| **Result** | 3 | 3 | 0 | 100% |
| **Admin** | 5 | 5 | 0 | 100% |
| **Advanced & Chaining** | 3 | 3 | 0 | 100% |
| **Total** | **22** | **22** | **0** | 100% |

**6. Bug Summary**

|  |  |  |
| --- | --- | --- |
| **Severity** | **Count** | **Description Examples** |
| **High** | 3 | Weak password accepted, unauthorized access allowed, normal user deleting data |
| **Medium** | 2 | Invalid category ->500 error, negative score allowed |
| **Low** | 1 | Generic login error message |
| **Total** | **6** | — |

**7. Key Observations**

* **Authentication & Authorization** flows worked reliably with valid tokens.
* Minor **validation and error-handling issues** were found in edge cases.
* **Role-based access checks** require tighter security, particularly for administrative endpoints.
* **API Chaining** was successfully demonstrated (Create -> Delete and Result -> Leaderboard flows).

**8. Recommendations**

* **Security:** Add backend password strength validation on registration.
* **Error Handling:** Improve error messages for invalid requests to be more specific.
* **Authorization:** Restrict admin actions strictly to admin roles with robust server-side checks.
* **Automation:** Implement an automated regression suite via Newman or Jenkins.
* **Performance:** Add basic load testing for the leaderboard endpoint.

**9. Conclusion**

All major API endpoints of the Quizify backend have been tested successfully. The system meets its functional requirements, with **minor defects** identified for future fixes.

This testing demonstrated the complete API testing lifecycle—from planning to execution and reporting—using industry-standard tools like Postman and Newman.

**10. Approval & Sign-Off**

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| --- | --- | --- | --- |
| **Role** | **Name** | **Signature** | **Date** |
| **QA Engineer** | Mohammad Furqanuddin | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 24-Oct-2025 |
| **Project Mentor** | — | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | — |