***POE Part 1 – Registration & Login***

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Test Cases and Results

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| Test Case ID | Description | Input | Expected Output | Pass/Fail |
| TC1 | Successful Registration | Username: sa\_ne, Password: Pass@123, Phone: +2781234567 | All inputs are valid. Registration successful. | Pass |
| TC2 | Invalid Username (too long) | Username: saneli, Password: Pass@123, Phone: +2781234567 | Username is not correctly formatted… | Pass |
| TC3 | Invalid Username (no underscore) | Username: sane, Password: Pass@123, Phone: +2781234567 | Username is not correctly formatted… | Pass |
| TC4 | Invalid Password (missing special char) | Username: sa\_ne, Password: Pass1234, Phone: +2781234567 | Password is not correctly formatted… | Pass |
| TC5 | Invalid Password (too short) | Username: sa\_ne, Password: Pa@1, Phone: +2781234567 | Password is not correctly formatted… | Pass |
| TC6 | Invalid Phone (missing + country code) | Username: sa\_ne, Password: Pass@123, Phone: 0812345678 | Cell phone number incorrectly formatted… | Pass |
| TC7 | Invalid Phone (too long) | Username: sa\_ne, Password: Pass@123, Phone: +278123456789012 | Cell phone number incorrectly formatted… | Pass |
| TC8 | Multiple Errors | Username: sanelisile, Password: pass123, Phone: 0812345678 | Registration failed. Please try again. | Pass |
| TC9 | Successful Login (pre-registered account) | Username: sn\_06, Password: Saneli66! | Login successful. Welcome, Sanelisile Nkosi! | Pass |
| TC10 | Failed Login (wrong password) | Username: sn\_06, Password: WrongPass1! | Login failed. Username or password incorrect. | Pass |

Conclusion

The Registration & Login application was successfully implemented and tested.  
- All test cases passed.  
- The automated test suite j that the system correctly handles both valid and invalid inputs.

**References**

Freeman, R.E., 2010. Strategic management: A stakeholder approach. Cambridge: Cambridge University Pressu. Available at: <https://doi.org/10.1017/CBO9781139192675> [Accessed:19 September 2025]

Bourne, L., 2016. Stakeholder relationship management: A maturity model for organisational implementation. Routledge.Available at:<https://doi.org/10.4324/9781315585665> [Accessed:19 September 2025]

Booch, G., Rumbaugh, J. and Jacobson, I., 2005. The unified modeling language user guide. 2nd ed. Addison-Wesley. Available at: <https://dl.acm.org/doi/book/10.5555/1074100> [Accessed:19 September 2025]

Sommerville, I., 2011. Software engineering. 9th ed. Boston: Addison-Wesley. Available at: <https://dl.acm.org/doi/book/10.5555/2017933> [Accessed:19 September 2025]

Pressman, R.S., 2014. Software engineering: a practitioner’s approach. 8th ed. New York: McGraw-Hill. Available at: <https://www.mheducation.com/highered/product/software-engineering-practitioner-s-approach-pressman-maxim/M9780078022128.html> [Accessed:19 September 2025]