**Practical Tech – Skill Test**

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| Please write your level from 1 to 4 where 1 is lowest and 4 is highest |  |  |
| **Skills** | **Level** | **Years of  experience** |
| **Common PHP** | | |
| Basic PHP | 4 | 6 |
| OOP patterns (please see mandatory ones below) | 4 | 6 |
| SOLID | 4 | 6 |
| **Common Web development** | | |
| JSON requests | 4 | 6 |
| HTTP fundamentals (verbs, cookies, status codes) | 4 | 6 |
| HttpContext, Request, response | 4 | 6 |
| Data Storage (Session, Cache) | 4 | 6 |
| Work with forms and ajax requests | 4 | 6 |
| Caching | 4 | 6 |
| Authorisation | 4 | 6 |
| Anatomy of PHP | 4 | 6 |
| Security (understanding of different types of attacks) | 4 | 6 |
| OWASP (optional) | 2 | 2 |
| Nginx server (optional) | 4 | 6 |
| **PHP frameworks** | | |
| Codeception (acceptance) | 4 | 3 |
| Behat | 4 | 3 |
| Gherkin | 4 | 3 |
| Basic knowledge of Laravel (optional) | 1 | 1 |
| Basic knowledge of Symphony Components (optional) | 4 | 3 |
| **Patterns** | | |
| Singleton | 4 | 6 |
| Element Object |  |  |
| Page Object | 2 | 0 |
| Page Factory | 2 | 0 |
| Chain of invocations |  |  |
| Facade | 4 | 6 |
| Value Object | 4 | 6 |
| Data Provider | 4 | 6 |
| Behavior Specification | 4 | 6 |
| Steps |  |  |
| **ORM and DB** | | |
| MySql : Primary, foreign, complex keys | 4 | 6 |
| Lazy loading understanding | 4 | 6 |
| NoSQL (Redis +) | 2 | 3 |
| DB Migration understanding | 4 | 6 |
| DB optimization | 4 | 6 |
| **Javascript** | | |
| AJAX | 4 | 6 |
| **Tools** |  |  |
| Chrome dev tools | 2 | 5 |
| Docker | 4 | 5 |
| Git | 4 | 6 |
| PHPExcel | 4 | 2 |
| Jenkins (AWS CD/CI) | 4 | 4 |
| PHPStorm | 4 | 6 |
| Postman | 4 | 6 |

**List of QA Interview questions**

*Please answer in few sentences.*

1. What is the difference between QA and software testing? **QA covers all steps from scratch to release version on production. Testing is the process of passing test cases**.
2. What are the automation challenges that SQA (Software Quality Assurance) team faces while testing? What are the contents of test plans and test cases? **Low level of understanding features for automation testing and how to use with concrete programming language. Test plans contain the scopes of tests to be run and information of actors/objects. Test cases contain all steps for validating software.**
3. What is the strategy for Automation Test Plan? **It’s the scope of rules for test plan.**
4. What are the tools used by you while testing? Don't include tools for automation. **Functional testing via web browsers.**
5. What are a Use-case, Checklist, and Test Case? What do they include? Explain differences and usage. What should a good bug report include? **Use case is the scope of user actions with application for getting expected result. Checklist is the list of needed checks. Test case is the scope of actions, data, conditions for testing system. Bug report should include: unique number, reporter, title, description, version of application, priority, severity, screenshots, steps for reproducing,**

1. What would you do if you have a large suite to execute in very little time? **I would use parallel execution.**
2. Have you ever managed writing the test cases without having any documents? In case you have any doubts regarding your project, how do you approach it? **I have managed tests written with codeception feature during code review and always it was without any documents. If I had any doubts regarding test I invited QA tester and we checked that test using pen and paper in real time.**
3. How would you make sure what tests should be automated and what to test manually? **I guess all features that will be used some times on the whole application or duplicated in some places. Manual testing for single or rare features if the cost of covering these places with auto tests will be more.**
4. What’s your experience using Continuous Integration as part of the development process? What is the importance of test data? **It was used always (Jenkins/aws ci/cd). Test data needed for running auto tests during deployment process.**

**Practical exercises**

**Exercise #1.** You have an input field that accepts an integer. The valid input is a positive two-digit integer. Specify testcases according to equivalence partitioning and boundary value analysis testing techniques.

1. **Value <= 9 – Test failed**
2. **Value >= 10 and Value <= 99 – Test Passed**
3. **Value >= 100 – Test failed**

**Exercise #2.** Define the minimum number of test cases required for full statement, branch, and path coverage for thefollowing code snippet:

Read X

Read Y

IF X>0 THENIF

Y>0 THEN

Print "Positive"

ENDIF

ENDIF

IF X<0 THEN

Print "Negative"

ENDIF

**Min number – 3.**

**Exercise #3.** Create an auto-test using Codeception and Selenium for the following scenario:

1. Go to Google.com
2. Search for “insly.com”
3. Verify that “https://insly.com/en/” link is present in search results
4. Click on link
5. Verify that title = “MGA software, insurance software for brokers and agents.”

Please zip you project and attach to e-mail.