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| **Cases** | **#** | **Decision ID** | **Decision title** | **Startup**  **Stage** | **Decision category** | **TD type** | **Participant (Interview transcript)** |
| Case-1 (C1) | 1 | C1\_D1 | Reuse an existing open-source software (ERPNext) and adopt its underneath development framework WebNotes | Stage 1 | TD Accumulation | Architecture | P-1, P-2 |
| 2 | C1\_D2 | Delay the update of the Python WebNotes Framework | Stage 1 | TD Accumulation | Infrastructure | P-1, P-2, P-3,  P-4 |
| 3 | C1\_D3 | Skip testing | Stage 1 | TD Accumulation | Test | P-1, P-2, P-4,  P-5 |
| 4 | C1\_D4 | Adopt code review practice | Stage 2 | TD Repayment | Test | P-2, P-4 |
| 5 | C1\_D5 | Migrate to a modern architecture design | Stage 3 | TD Repayment | Architecture | P-1, P-3 |
| 6 | C1\_D6 | Apply automated testing – unit and regression tests | Stage 3 | TD Repayment | Test | P-1, P-4,  P-5 |
| Case-2 (C2) | 7 | C2\_D1 | Apply a sub-optimal monolithic architecture for a small-scale development | Stage 1 | TD Accumulation | Architecture | P-6 |
| 8 | C2\_D2 | Select a sub-optimal PHP development framework (CakePHP) | Stage 1 | TD Accumulation | Infrastructure | P-6 |
| 9 | C2\_D3 | Ignore some design patterns | Stage 1 | TD Accumulation | Design | P-6, P-7, P-8 |
| 10 | C2\_D4 | Skip testing | Stage 2 | TD Accumulation | Test | P-6 |
| 11 | C2\_D5 | Skip the upgrade of CakePHP framework to version 3 | Stage 2 | TD Accumulation | Infrastructure | P-6, P-8 |
| 12 | C2\_D6 | Migrate from monolithic to microservice architecture | Stage 3 | TD Repayment | Architecture | P-6, P-7, P-8,  P-9 |
| 13 | C2\_D7 | Refactor code | Stage 3 | TD Repayment | Design | P-6, P-7 |
| 14 | C2\_D8 | Upgrade the development infrastructure to fit the new microservice architecture | Stage 3 | TD Repayment | Infrastructure | P-6, P-9 |
| 15 | C2\_D9 | Apply black-box testing | Stage 3 | TD Repayment | Test | P-7, P-8,  P-9 |
| Case-3 (C3) | 16 | C3\_D1 | Apply sub-optimal code design by designing the entire code as scripting language (JavaScript) | Stage 1 | TD Accumulation | Design | P-10, P11 |
| 17 | C3\_D2 | Select sub-optimal database management tool (MySQL) | Stage 1 | TD Accumulation | Infrastructure | P-10 |
| 18 | C3\_D3 | Switch the database management tool to PostgreSQL | Stage 1 | TD Repayment | Infrastructure | P-10 |
| 19 | C3\_D4 | Skip updating unit tests | Stage 2 | TD Accumulation | Test | P-10, P11 |
| 20 | C3\_D5 | Apply sub-optimal design for the push notification feature | Stage 2 | TD Accumulation | Design | P11 |
| Case-4 (C4) | 21 | C4\_D1 | Skip the integration test | Stage 1 | TD Accumulation | Test | P12, P-13 |
| 22 | C4\_D2 | Apply sup-optimal design of the search feature | Stage 1 | TD Accumulation | Design | P-13, P-14 |
| 23 | C4\_D3 | Upgrade Angular framework from version 7 to 9 | Stage 2 | TD Repayment | Infrastructure | P-13 |
| 24 | C4\_D4 | Apply sub-optimal architecture design for the mobile app | Stage 2 | TD Accumulation | Architecture | P12, P-14 |
| 25 | C4\_D5 | Integrate with a third-party tool for push notification | Stage 2 | TD Accumulation | Design | P12 |
| 26 | C4\_D6 | Develop a custom API for push notification | Stage 2 | TD Repayment | Design | P12 |
| 27 | C4\_D7 | Re-structure the web architecture from single-page to multiple-page application | Stage 2 | TD Repayment | Architecture | P12, P-14 |
| Case-5 (C5) | 28 | C5\_D1 | Apply sub-optimal design of the business logics that were hard-coded and distributed over different places in the codebase | Stage 1 | TD Accumulation | Design | P-15 |
| 29 | C5\_D2 | Removed the front-end development framework (BackboneJS) | Stage 1 | TD Repayment | Infrastructure | P-15 |
| 30 | C5\_D3 | Skip testing | Stage 1 | TD Accumulation | Test | P-15 |
| 31 | C5\_D4 | Develop the first mobile app as a web-app | Stage 2 | TD Accumulation | Architecture | P-15 |
| 32 | C5\_D5 | Re-architect the mobile app from web to native app | Stage 2 | TD Repayment | Architecture | P-15 |
| 33 | C5\_D6 | Add tests at the API integration | Stage 3 | TD Repayment | Test | P-15, P-16 |
| 34 | C5\_D7 | Code refactoring and redesigning | Stage 3 | TD Repayment | Design | P-15,  P-16,  P-17 |
| 35 | C5\_D8 | Add and improve testing | Stage 3 | TD Repayment | Test | P-15,  P-16,  P-17 |

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| **#** | **Recommendation** | **Participants** | **Ref decision ID** |
| 1 | Do not reuse code or framework that the team is not very familiar with | P-1, P-2 | C1\_D1 |
| 2 | Include at least minimum functional unit test | P-1, P-2, P-4 | C1\_D3 |
| 3 | Include some manual system/UI testing | P-1, P-2, P-5 |
| 4 | Include smoke testing at the integration level when the number of users is increased | P-2 |
| 5 | Enforcing some code design standards to be followed by all the team | P-6, P-7 | C2\_D3 |
| 6 | Devote sometime for overall system testing in the earlier stage | P-6 | C2\_D4 |
| 7 | Upgrade the development framework before the codebase becomes huge | P-6, P-8 | C2\_D5 |
| 8 | Introduce strongly typed language as soon as you receive money | P-10 | C3\_D1 |
| 9 | Include UI/ snapshot testing in the early stage | P-10 | C3\_D4 |
| 10 | Include unit test for important functions | P-10, P-11 |
| 11 | Update unit test and include some integration tests when user requirements are understood | P-10 |
| 12 | Update requirement documentation when the team size grow up | P-10 |
| 13 | Consider system/acceptance testing before going to market | P-12 | C4\_D1 |
| 14 | Include integration tests when getting huge bugs | P-13 |
| 15 | Leverage 3rd party tools/services | P-13 | C4\_D2 |
| 16 | Remove/replace any 3rd party tool/service when serious limitations are found early, before the number of users is increased | P-13 |
| 17 | Skip code quality, but not important design pattern such as business logic | P-15 | C5\_D1 |
| 18 | Limit the use of a new or unfamiliar technology until it becomes mature | P-15 | C5\_D2 |
| 19 | Maintain the documentation of the business logic requirements when adding new developers | P-15, P-16,  P-17 | C5\_D7 |
| 20 | Include at least some unit testing from the early development | P-16,  P-17 | C5\_D8 |