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| Summary |
| EPAM-EXT\_2021 |

| Related Artifacts | |
| --- | --- |
| Ref. | Name |
| 1 | EPM-SPI\_TestPlan.doc |
| 2 | EPM-SPI\_TestCases.xlsx |
| 3 | EPM-SPI\_Defect\_build\_2021.xlsx |
| 4 | EPM-SPI\_Defect\_build\_2022.xlsx |
| 5 | EPM-SPI\_TestResultReport\_LSH\_build\_2021.doc |
| 6 | EPM-SPI\_TestResultReport\_LSH\_build\_2022.doc |
| 7 | EPAM-EXT\_2021.side |
| 8 | https://cake64.ru/ |

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| Abbreviations and Acronyms | |
| BG | Average duration of work on a task |
| P | Pessimistic duration of work on a task if all possible negative factors work out |
| O | Optimistic duration of work on a task, if there are no obstructions during the work |

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# Description

The EPAM-EXT\_2021 project is the website of the "Ваниль Корица" pastry-shop. The functionality of the website consists of viewing information about the pastry-shop, about its products and ordering products.

I chose this site as a test application for the project, because this pastry shop is one of the most popular in the city and, of course, the site visits are high. The quality of such popular resources is very important, so I considered it necessary to take this particular site as a testing project.

# Work process components

List of tasks to be performed during the EPAM-EXT\_2021 project:

1. Creating a Summary
2. Creating a Test Plan
3. Creating a Test Cases
4. First build installation
5. Smoke Test execution
6. Critical path Test execution
7. Extended Test execution
8. First Bug reports creation
9. First Test Result Reports creation
10. Second build installation
11. Regression Smoke Test execution
12. Regression Critical path Test execution
13. Regression Extended Test execution
14. Second Bug reports creation
15. Second Test Result Reports creation

# Estimation

**Rationale for choice**

To estimate the time for the project, we use a three point estimate. The method based on previous experience isn’t suitable due to lack of experience. The rest of the methods may not be suitable due to the small amount of information about the system. Therefore, the three-point method will be optimal for the EPAM-EXT\_2021 project.

**Average calculation of time to complete work:**

Estimated time for convening a Summary - 3 hours

Estimated time for convening a Test Plan - 10 hours

Estimated number of Test Cases – 27

Average time to create one test case – 25 minutes, this means total Test Cases time – 11,5 hours

Execution of Test Cases – 4,5 hours

Automation Smoke Test – 15 hours

First Bug reports creation – 10 hours

First Test Result Reports creation – 7 hours

Regression Tests – 5 hours

Second Bug reports creation – 10 hours

Second Test Result Reports creation – 7 hours

**Agenda:**

BG - Average duration of work on a task

P - Pessimistic duration of work on a task if all possible negative factors work out

O - Optimistic duration of work on a task, if there are no obstructions during the work

**Planned time for calculating the estimate and the fact time**

|  |  |  |
| --- | --- | --- |
| Task | Planned Time | Fact Time |
| Summary | BG - 4 hours  P – 7 hours  O – 2 hours  Estimation – 4,1 hours  Deviation ± 0,8 hours | 5 hours |
| Test Plan | BG - 10 hours  P – 20 hours  O – 5 hours  Estimation – 10,8 hours  Deviation ± 2,5 hours | 11 hours |
| Test Cases | BG - 11,5 hours  P – 25 hours  O – 9 hours  Estimation – 13,3 hours  Deviation ± 2,6 hours | 27 hours |
| Execution of Test Cases | BG - 4,5 hours  P – 10 hours  O – 3 hours  Estimation – 5,2 hours  Deviation ± 1,2 hours | 5 hours |
| Automation Smoke Test | BG - 15 hours  P – 25 hours  O – 10 hours  Estimation – 15,8 hours  Deviation ± 2,5 hours | 13 hours |
| First Bug report creation | BG - 10 hours  P – 20 hours  O – 7 hours  Estimation – 11,2 hours  Deviation ± 2,2 hours | 7 hours |
| First Test Result Reports creation | BG - 7 hours  P – 15 hours  O – 4 hours  Estimation – 7,8 hours  Deviation ± 1,8 hours | 5 hours |
| Regression Tests | BG - 5 hours  P – 10 hours  O – 3 hours  Estimation – 5,5 hours  Deviation ± 1,2 hours | 5 hours |
| Second Bug reports creation | BG - 10 hours  P – 20 hours  O – 7 hours  Estimation – 11,2 hours  Deviation ± 2,2 hours | 5 hours |
| Second Test Result Reports creation | BG - 7 hours  P – 15 hours  O – 4 hours  Estimation – 7,8 hours  Deviation ± 1,8 hours | 3 hours |

**Estimation calculation**

**Total:**

BG – 84 hours

P – 167 hours

O – 54 hours

**Formula**

Three point estimate formula: (O + 4 \* BG + P) / 6

Standard deviation: (P-O) / 6

**Result**

As a result, we get: **92,8 ± 18,8** hours

UPD

Fact time is **86** hours

# Conclusion

The estimation method I used turned out to be pretty accurate. The difference was only 6.8 hours. But the error in the three-point estimation method turned out to be very large, 18.8 hours as an error is a lot. I believe that I got such a big error due to the fact that I have little experience in performing such tasks, so I was reinsured. In more detail, I greatly overestimated the section "P - Pessimistic duration of work on a task if all possible negative factors work out", again due to lack of experience. For example, I did the automation of a smoke test in Selenium IDE for the first time and therefore couldn’t know how long it would take. But in general, I was satisfied with the ratio of the estimated time and the actual time.

| REVISION HISTORY | | | | | |
| --- | --- | --- | --- | --- | --- |
| Ver. | Description of Change | Author | Date | Approved | |
| Name | Effective Date |
| 1.0 | First version: Creation of all 3 items except for the "Fact Time" column in the table | Andrey Mramornov | 14-12-2021 |  |  |
| 2.0 | Final version: Adding the actual time to the "Fact Time" column in the table | Andrey Mramornov | 10-01-2022 |  |  |