МИНИСТЕРСТВО НАУКИ И ВЫСШЕГО ОБРАЗОВАНИЯ  
РОССИЙСКОЙ ФЕДЕРАЦИИ

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**Отчет по лабораторной работе №4**

Дисциплина: «Project Management   
(Менеджмент разработки ПО)»

Тема: **«Scalability»**

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**ЗАДАНИЕ**

Frequent situation when the customer persistently asks to reduce the price. Or, even worse, ask to cut the budget in the middle of project. For such cases, it is worth to put an offer "with an extra margin".

So imagine the situation. Suppose you have a project described in PM Lab1, and the customer requests to reduce the total development costs by half. For some reason, it is impossible to refuse. Reducing the quality of work by hiring cheaper, but less qualified professionals is also impossible. It is necessary to reduce the functionality, reduce the scale of the project.

Describe what reductions in the scale of your project will allow you to reduce initial budget in 2 (or around it) times.

**ХОД РАБОТЫ**

**Reducing the cost of project development:**

Implementation plan by stages, time to implement, cost

**Fist stage:** Development of technical task by analysts. Make decision about using technologies and tools.(Stack of technologies) 1 month

Number of employees, skills: 2 employee, analytical skills, general knowledge of technologies

2 employees, 5 days/week, 4 weeks, 8 hours, $8/hour => 2\*5\*4\*8\*8 = $2560

Stage budget: $2560

**Second stage:** Search, collect and data analysis by Big Data specialist, start to construction and training of the neural network by machine learning specialists. 3 month

Number of employees, skills: 3 employee, experience of analysing big data, ability to build and train neural networks

3 employees, 5 days/week, 5 weeks, 8 hours, $9/hour => 3\*5\*5\*8\*9 = $5400

Stage budget: $5400

**Third stage:** Mobile and desktop interface development by UI/UX specialists and by designers. Development of progressive web application by developers. 4 month

Number of employees, skills: 3 employee, ability to develop responsive, adaptive design, ability to code on React.js, Python/Java, middle or senior level.

2 employees, 5 days/week, 6 weeks, 8 hours, $10/hour for two developers => 2\*5\*6\*8\*10 = $4800

1 employee, 5 days/week, 3 weeks, 8 hours, $7.5/hour for UI/UX specialist => 1\*5\*3\*8\*7.5 = $900

It is assumed that the UI/UX specialist will work 1 month independently and 1 month at the same time with the developers.

4800+900 = 5700

Stage budget: $5700

**Fourth stage:** Testing the finished application, fixing bugs and issue in production. 1 month

Number of employees, skills: 1 employee, ability to find bugs

1 employee, 5 days/week, 2 weeks, 8 hours, $7/hour => 1\*5\*2\*8\*7 = $560

Stage budget: $560

**Total time duration:** 5 months

$2560+$5400+$5700+$560 ---->

**Total budget after reducing:** $14220

**Initial budget:** $28640

**Functionality comparison:**

***Development with initial budget:***

1. User profile

2. Integration(sign up/sharing) with socail sites

3. Gradation of tests

4. Generating reports

5. Notifications

6. Loading files

7. Email alerts

8. Support service

***Development with half cost budget:***

1. Gradation of tests (but less)

2. Generating reports

3. Notifications

4. Email alerts

5. Support service

**ЗАКЛЮЧЕНИЕ**

In this assignment I tried to reduce initial budget in 2 times by reducing the functionality and the scale of the project.