

## Assignment 3. CNB Project Planning Phase

### Educational project “Crash and Burn Laboratory”

#### Project planning phase

Current project will use agile methodologies in order to succeed. As the best practices from the field, I decided to use Scrum framework.

Here are the input data according to scrum:

**Product:** Brand new concept of Laboratory “Crash and Burn”

**Epic:** Delivery of “Crash and Burn” labs for 2<sup>nd</sup> year bachelor students

**Product Backlog:**

**Features:** Develop Laboratory work 1-8

**User Stories:**

**1. Prepare input materials for Laboratory 1-8 (Priority 1)**

(Equipment, Tools, Purchase, Material pass, Transportation)

**2. Prepare for Laboratory 1-8 (Priority 2)**

(Equipment test, Timing, Speech, Tools)

**3. Delivering Laboratory 1-8 (Priority 3)**

(At planned time)

**4. Learning Check for students (Priority 4)**

(Labor tracking, check acquired knowledge)

### Sprint Planning

**Sprint length** – 1 week.

Defined story point according to lowest story – **User Story 4. Learning check for students**

- User Story 1 = 5 story points
- User Story 2 = 2 story points
- User Story 3 = 2 story points
- User Story 4 = 1 story points

Defined **team velocity** (how much story point per sprint) = **10 story points**

### Create Task List

According to scrum framework defined task list for each user story:

#### **1. Prepare input materials for Laboratory 1-8**

- Choose appropriate equipment, tools,
- Find equipment and tools at lowest possible price,
- Material pass to bring the equipment to University,
- Transportation arrangements

#### **2. Prepare for Laboratory 1-8**

- Test equipment according to Laboratory 1-8 plan,
- Estimate timing in frame of lesson length,
- Plan pitch

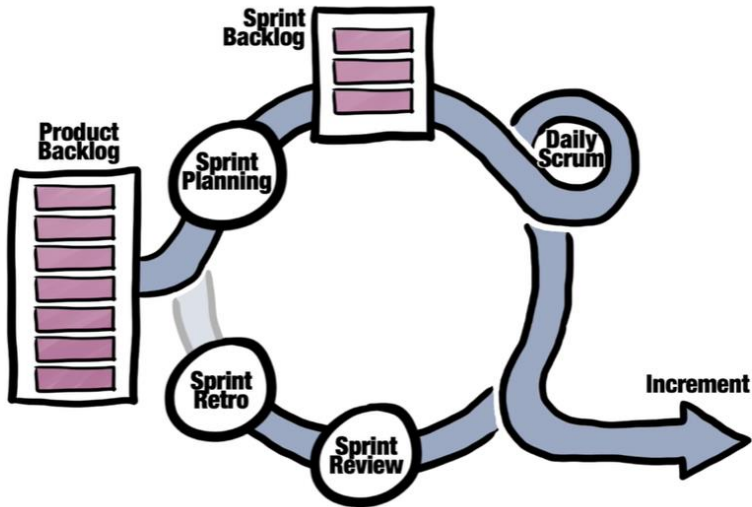
#### **3. Delivering Laboratory 1-8**

- Check equipment before labs
- Handle 3 hours laboratory work with students
- Give theoretical knowledge during labs

#### **4. Learning Check for students**

- Develop knowledge check methodology
- Assess laboratory completion for each student
- Grade each student
- Give feedback, reflect.

Team at each sprint will raise towards its sprint goal - is to release a potential increment as shown at the picture 1. This can be assumed as a deliverable of project.



Picture 1 – Scrum framework

Make a Budget

Classroom for organizing labs will be provided by University. Therefore no renting.

University will cover all the costs related to utility bills (like electricity, internet, heating, security, cleaning and video surveillance etc.). Therefore no monthly payments for that.

University covers salary payments for the stuff.

The main costs related with purchasing laboratory equipment, tools and stationery.

Description	P/N:	Q-ty	Price
<b><u>Rack and Power Systems</u></b>			
30U Rack with Cooling System		1	120 000
HP Power Distribution Unit		2	60 000
HP PDU Extension Bar		2	35 000

UPS APC CS650		2	30 000
<b><u>Rack mount servers</u></b>			
IBM System x3250	4364K1G	1	80 000
Asus Z8NR-D12	Z8NR-D12	1	190 000
Intel Server System SR1600URHSR	E86278-001	1	150 000
Dell PowerEdge R320	FK0PNW1	1	250 000
HP ProLiant DL385R01	391111-421	1	40 000
<b><u>Tower servers</u></b>			
Dell PowerEdge 1900	ECM01	1	70 000
HP ProLiant ML370 G5	433750-421	1	70 000
MicroServer		1	50 000
<b><u>Storage Systems</u></b>			
HP X9320 14.4TB Capacity Block Exp Kit	QP338A	1	350 000
3PAR F-Class	QL226B	1	250 000
<b><u>Backup Systems</u></b>			
HP StorageWorks 1/8 G2 Tape Autoloader	435243-002	1	150 000
HP LTO-5 Drive		1	70 000
HP Ultrium LTO-5 Tapes		10	30 000
<b><u>Networking Systems</u></b>			
Cisco 2800 Series	CISCO2801 V04	1	60 000
Cisco 2600 XM Series	800-20059-01	1	60 000
Cisco 48-port 10/100 Managed Switch	SRW248G4-K9 V02	3	90 000
Cisco Aironet 802.11n Single Band Access Point	AIR-LAP1041N-E-K9	5	100 000
Allied Telesyn AT-8000S Series	AT-8000S/48	1	25 000
Allied Telesyn AT-8000S Series	AT-8000S/24	1	20 000
HP ProCurve Switch 2510-48	J9020A	2	70 000
HP AdvanceStack Hub-16U	J2611B	1	10 000

RubyTech ES-2226C	ES-2226C	1	20 000
Acorp 10/100 Fast Ethernet Switch	HU16D2-G	1	20 000
D-Link DES-3552	RES3552A3A...A3G	1	30 000
<b><u>Printers and Imaging devices</u></b>			
HP Laserjet 1000 Series		2	20 000
HP LaserJet 1160		2	30 000
HP ScanJet G2710		2	15 000
Epson Stylus InkJet printer		1	15 000
<b><u>Personal Computing Systems</u></b>			
Personal Computer		2	60 000
Notebook for disassembling		2	70 000
Monitor 17"		2	10 000
HP Compaq t5000 thin client		10	50 000
CPU for demo		1	5 000
DIMM for demo		1	5 000
PC Power Supply for demo		1	5 000
Motherboard for demo		1	10 000
PCI Adapter for demo		1	5 000
HDD for demo		1	5 000
<b><u>Video and Voice devices</u></b>			
Analog Camera		5	25 000
Analog Camera Recorder		1	20 000
IP Camera		5	40 000
IP Phone		2	15 000
<b><u>Tools</u></b>			
Multimeter		1	15 000
RJ45 Tester		1	10 000
PC Power Supply Tester		1	10 000

RJ45 crimping tool		1	10 000
Antistatic Wrist Strap		1	5 000
<b><u>Accessories</u></b>			
C13-C14 cables		20	10 000
C13-Euro cables		20	10 000
C19-Euro cables		2	10 000
UTP RJ45 cables		20	10 000
RJ45 Connectors		30	2 000
USB cables		10	5 000
VGA cables		2	1 000
Thermal Grease		1	3 000
<b><u>Services</u></b>			
Transport expenses			20 000
Installation			10 000
Banner for Laboratory			5 000
			<b><u>Total</u></b> 3 041 000

## Risk Management Plan

### Identifying the risks

- Current laboratory would not be added to curriculum in the next educational year due to political reasons.
- Current laboratory would not be interesting to students
- Laboratory brand recognition will be insufficient.
- Personal injury of the students during labs
- Fire danger
- Poor quality of delivered knowledge

- Imbalanced difficulty level for students. Whether it would be very difficult or very easy
- Non-transferrable teaching method for University staff teachers
- Insufficient teachers in case of student's interest growth.
- Project would not be profitable.

### Analyzing risks

Risk	Likelihood	Severity	Response	Priority
- Current laboratory would not be added to curriculum in the next educational year due to political reasons.	Low	High	Defend our project in Academic commission.	2
- Current laboratory would not be interesting to students	Low	High	Immediately review the lab themes, adapt for current interests, become flexible, more discussions with team members and student's feedback	1
- Laboratory brand recognition will be insufficient.	Medium	Medium	Give more effort for advertisement. Seek volunteers for brand promotion. Act in University events. Maybe initiate competitions.	3
- Personal injury of the students during labs	Low	High	Develop safety precautions. Always improve, discuss with team, get feedback from students	1
- Fire danger	Low	High	Comply with all safety rules of the building, insist on periodical equipment checking.	1
- Poor quality of delivered knowledge	Low	Medium	Always develop educational plan, change themes, add more practical tasks, discuss with team, get feedback from students.	1
- Imbalanced difficulty level for students. Whether it would be very difficult or very easy	Medium	Medium	Analyze students success, check metrics	2
- Non-transferrable teaching method for University staff teachers	High	Low	As main concept of the labs – involve mostly professionals from the field	3
- Insufficient teachers in case of student's interest growth.	High	Low	Create more comfortable conditions to attract people from field to delivers their knowledge to students.	3

- Project would not be profitable.	Medium	Low	Search for more opportunities. Apply for multiple grants. Negotiate with other Universities to open new branches of labs	3
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Risk management should be proactive, not reactive. Therefore together with team we will monitor the risks and define new once during sprint review and retrospective.

## Communications plan

### Communication methods

**Email** - to officially communicate announcement, important information, meeting invitation etc.

**Microsoft Teams** – to organize planned and unplanned meetings with students

**Telegram group** – for instant questions and answers, reminders etc

**Moodle** – to officially post plan, announcements, tasks.

### Communication plan

Description	Frequency	Channel	Audience
Sprint planning review, weekly standup minutes	Weekly	Microsoft Teams	Team members
Sprint review minutes	Weekly	Microsoft Teams	Team members
Retrospective minutes	Weekly	Microsoft Teams	Team members
Sprint planning virtual room meeting	Weekly	Microsoft Teams	Team members
Sprint review virtual room meeting	Weekly	Microsoft Teams	Team members



Retrospective virtual room meeting	Weekly	Microsoft Teams	Team members
Instant questions and answers between team members, continuous chat, brainstorming	Daily	Telegram group	Team members
Progress report	As needed	Microsoft Teams	Department director
Instant questions and answers between team members, continuous chat	Daily	Telegram	Department director
Progress report	As needed	Email	Deans office
Project progress report, official communication	Quarterly	Email	Grant financing sponsor
Announcements, plan of work, details on labs, syllabus etc, Student's feedback	As needed	Moodle	Students
Official messages, queries, important announcements etc.	As needed	Email	Students
Instant questions and answers between team members, continuous chat, brainstorming	Daily	Telegram group	Students













