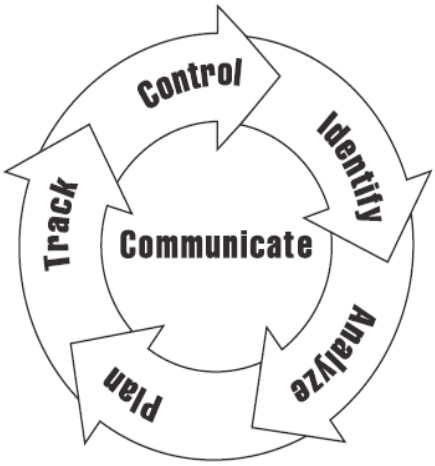
Software Project Management II

Master Software Technology
Exercise 8: Risk Management

1 Risk Management – Basic questions

a) Name and describe some typical examples for risks in software projects!
b) Briefly explain the general risk classes (known/unknown)! Which of these – do you think – are the most crucial ones? How can you cope with them?
c) Describe at least one approach to risk management!
d) How do you quantify risks?
e) According to your knowledge, what does the SEI-risk management process as outlined in the figure contain in each step?
   i. Risk identification
   ii. Risk analysis
   iii. Risk planning
   iv. Risk monitoring (track & control)



f) Briefly describe examples for the following kinds of risks (there are many categorizations!):
   i. technology risk
   ii. people risk
   iii. organisational risk
   iv. tools risk
   v. estimation risk
g) With respect to risk management, explain the terms
   i. risk mitigation and
   ii. contingency plans
h) Do you set up contingency plans for every little single risk in your project? Describe a procedure how to decide whether contingency plans make sense for a given risk or not!
i) Is it sufficient to identify risks at the very beginning of the project only? Give reasons for your answers and a recommendation how to take care of your concerns “operationally”!

2 Risk management – case study revisited (optional)

Revisit the case study (exercise # 3) you are already familiar with:

A group of first semester students came up with a nice idea for a 30 inch financial tablet dedicated to manage students' finances. A first mock-up was presented, showing an example for the monthly costs and how they could be financed. Although neither you nor the students are exactly sure that this will eventually the best size, you and your team want to elaborate on this idea along the subsequent lines:

The device should comprise at least the following functionalities:

a) Personal Information Management (PIM), including
   i. calendar,
   ii. addresses,
   iii. task management (to-do lists) and
   iv. notes;
b) Communication, including
   i. phone,
   ii. email,
   iii. instant messenger;
c) navigation integrating pedestrian, bicycle, public transport and cars,
d) dedicated students' apps supporting
   - financial management (as sketched in the mock-up),
   - students' time table synchronized with the university schedule available on a precise day-to-day base in "LSF",
   - "homework" management and
   - direct access to the e-learning system Moodle.

   For all of these dedicated students' apps, it is open whether they are already available on the market or whether they have to be developed in this project. In either case, integration with PIM is mandatory.

Beyond functionalities, the following items have to be considered:

e) One or more platforms (Android, Blackberry, iOS, Windows Phone) have to be chosen. Criteria for this selection have to be developed and agreed upon among all of the stakeholders.
f) The device itself (i.e., the hardware) has to be specified.
g) At least two different versions w.r.t. to connectivity come to mind, either with WLAN only or with WLAN and GSM. Based upon the latter, telecoms might want to offer bundles, including attractive pricing for students.

Now you are faced with the challenge to set-up the proper **risk management** for this project. Reconsider the WBS you have to developed (or take one of those discussed in class). Your task is to develop the adequate risk management for the project! Work in teams of 3 – 5 students. Some initial hints:

a) Discuss (and make up your mind!) how you want to include risk management in the overall project management activities.
b) Take into account all relevant phases of the project or – to put it different – the complete risk management process.
c) Clearly distinguish risk mitigation and contingency plans.
d) Prepare to present your approach in class.