

# **Project: Requirements Analysis**

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- Nowadays technical web forums are very suitable to assist owners and users of products in order to give technical support.
- Requirements for such software applications are e.g. suitable scope of the accessible information, updated knowledge on existing problems and good usability.
- In Vietnam scooters and small motorcycles are the main means of transport.
- As far as known repair and maintenance is mainly organized by small service shops. A powerful technical forum application to support the shops or also private users for self-assistance with information on technical problems, spare parts etc. would be helpful and could help users of scooters save a lot of money.

## Teambuilding

- The whole group of students will be divided into several teams ( 5 students).
- **All students must have the necessary prerequisites to attend the project, especially good programming skills.**
- In each team one team member will be nominated as "Team Leader" for the reason of better communication with the lecturer.
- The team leader has no special rights and has to work in the same way as the other team members.
- But he (or she) is responsible of coordinating the tasks of the other team members and to organize the flow of work within the team.

## General Goals of the Project Work

1. Application and consolidation of design and programming skills.
2. Building up knowledge on project management, team work and communication skills.
3. Learn how to write a short report (according to scientific principles to prepare for the later bachelor thesis).

## Desired results of the Forum Software

1. Detailed and documented requirements engineering
2. Definition of a project plan, consisting of:
  - WBS (Work breakdown structure)
  - Project schedule plan (GANTT diagram)
  - Milestone plan
3. Software design
  - Modeling, e.g. by UML diagrams
4. Software construction (object-oriented)
  - Logical aspects of the software application
  - Code / programming work
  - Database connection (MySQL or else)
  - User interface
5. Software testing
6. Proposal for later implementation
7. Proposal for later maintenance of the system
8. Live Presentation of the software (20 min. per group on October 22)
9. Detailed report on the development process and the application (submittance by e-mail, deadline Oct. 29, 2018)

## **1st step: Analysis of Existing Forum Applications**

- Find forum applications for motorcycles (English language) in different countries or forum applications for other technical products
- Try them out.
- Identify the different functions, designs, applications etc.
- Focus on the benefits of the usage a potential user might have.
- Name the particular websites and write comments about these forum applications.
- Later we will present some forum applications and discuss the differences.
- Goal: Definition of requirements for our planned motorcycle forum.

## Basis Functions of the Forum Application

- Online registration procedure (for new users)
- Sign-in procedure (by login with user name / password or different social media systems)
- Search functions (e.g. Search Box) to browse diverse information diverse subjects e.g. technical problems, recommendations to the solution of repair problems)
- No. of threads and posts
- Differentiation of threads
  - Choice by different types, models, date, etc.
- Installation of different sub forums
  - Problem areas, topics
- Forwarding of threats by email
- Reply function (reply to threats) – real time
- GUI – Graphical User Interface
  - Easy to learn and to use (good usability)
  - Nice design of the graphical user interface
  - Integration of images (picture user, images of technical components etc.)

## **Additional Features of the Forum Application**

- Possibility to inform administrator (e.g. about unproprieate threads)
- Function to reset the password
- Indication of status (read and unread threads)
- Link to videos (e.g. link to Youtube)
- Recent discussion ("hot topics")
- User profile (age, no. of posts etc.)
- Subscription to certain threads
- Information about the use of cookies
- Imprint (name, adress etc. of administator or company)
- etc.



## Daily work

- Students can work on the tasks not only in classroom but everywhere else where they have stable Internet connection or suitable space to work in groups (e.g. library).
- Once or twice a week there will be status meetings to present results and discuss further steps.
- The results for the project management plan
  - WBS (Work Breakdown Structure)
  - Time Schedule (Gantt Chart) and assignement of tasks to team members
  - Milestone Plan

should be finished and presented until 9th of October.

## Evaluation

- The evaluation of the results by the lecturer will refer to all three results (software, report and presentation).
- Parts of the scientific report which have been created by a particular student should be marked with the name of this student.