Group Project - Proof search vs Proof checking - Log book

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October 31, 2010

Meeting 1 - 12.10.2010

People present: S. Benhaim, J. Bullian, M.G. Parusinski, K. Cheng, Dr. Dirk
Purpose: Discuss organisation of the project and discuss main topic on the project
Points discussed:

- Statement of the problem and its implications
- Possible challenges of the problem
- Reports and deadlines to meet
- Goals of the project

For next meeting

- Read litterature about Description Logic and KR based system

Meeting 2 - 13.10.2010

People present: S. Benhaim, J. Bullian, M.G. Parusinski, K. Cheng
Purpose: Discuss organisation of the project, assigning role in the group, discussing design and goals.
Points discussed:

- Language will be Haskell
- M.G. Parusinski becomes Secretary
- Syntax for representing formulas using Abstract Data Types
- Output files to be generated: one human readable, one machine readable
- Tools for programming: Code review, Version Control, Automated testing (HUnit)
- Optimisation

For next meeting:

- Check HUnit
- Think about a modular design
- Choose version control
- Provide possible documentation for other members

Temporary assignements:

- S.Benhaim: Proof search
- M.G. Parusinski: Model Checking
- K.Cheng: Proof Checking
- J.Bullian: Model Construction

Suggested critical goals (for B):

- Implementing an algorithm that performs proof searching
- Implementing an algorithm that performs model construction
- Implementing an algorithm that performs proof checking
- Implementing an algorithm that performs model checking
- Ensuring our algorithms are correct if terminates

Secondary optional goals (for A):

- Generating human readable format for models and proof representation
- Implement a parser for reading formulas
- Testing the code with tests unit
- Extend to non standard logics

Meeting 3 - 14.10.2010

People present: S.Benhaim, J.Bullian, M.G. Parusinski, K.Cheng
Purpose: Discuss organisation of the project, agreeing on roles
Points discussed:

- Code review and version control: Google code if the project can be open source
- HUnit will be used for testing
- Data type to describe signature: see signature.hs
- Questions for the supervisor

For next meeting:

- Decide whether the code can open source or not. If possible which license to use

Meeting 4 - 15.10.2010

People present: Dr. Dirk, S.Benhaim, J.Bullian, M.G. Parusinski, K.Cheng
Purpose: Discuss first report and division of work
Points discuessed:

- Changes to types: restricting to unary and binary relations correcting errors made
- Determining whether project can be open-source or not

- Diving proof and model search algorithm into three parts: tree creation, proof search, model search

For next meeting:

- Read litterature about DL, tableau calculus
- Check CoLoss
- Correct the type definitions

Meeting 5 - 18.10.2010

People present: S.Benhaim, J.Bullian, M.G. Parusinski, K.Cheng
Purpose: Discuss first report, setting up the working environment for the project and discuss timetable
Point discussed

- Time table agreements
- Project organisation
- Should the language definition should be minimal or not

Agreements:

- Monday meetings at 12-13 everybody agreed this as their first choice
- Thursday meeting at 11-12 everybody agreed this as their first choice
- Use the minimal defintion

For next meeting:

- Set up a Google Account for code.googe.com if not already available
- Install Mercurial on favourite O.S.
- Read about DL, and tableau calculus
- Compare Extreme Programming, and Scrum
- Think about first iteration plan
- Think about schedule
- Think about development method (See above)

Meeting 6 - 21.10.2010

People present: S.Benhaim, J.Bullian, M.G. Parusinski (missed part of it), K.Cheng
Purpose: Discuss first report, discuss development method
Point discussed:

- Agile development method
- Discuss the algorithms
- Eating

For next meeting:

- Read the litterature more carefully and understand the algorithms
- Checkout all the Agile Software Development methods and choose one
- Describe the first iteration plan
- Finish the draft timetable

Meeting 7 -22.10.2010

People present: S.Benhaim, J.Bullian, M.G. Parusinski, K.Cheng **Purpose:** Discuss agile development method **Point discussed:**

- Testing code and testing practices
- Agile software development
- Inception report

Agreements:

- Write test then write code then test and then submit
- Review other people code whenever new submissions and if possible
- Clear comments
- Respect haskell standards

For next meeting:

- Read all relevant documentation
- Read about agile software development
- Find clear cut goals
- Agree for goals and agile software development
- Every person choose the features for the software development pratice
- Write the report
- Deadline spreadsheet and tasks spreadsheet

Meeting 8 - 25.10.2010 and Meeting 9 - 26.10.2010

People present: S.Benhaim, J.Bullian, K.Cheng
Purpose: Agreements for project inception
Agreements:

- Software development method Agile development XP, Crystal Clear, Agile Unified Process mixture
- Agreement on design and early assignements of tasks
- Agreement on a draft schedule
- Agreement on a first iteration plan

Meeting 10 - 27.10.2010

People present: S.Benhaim, J.Bullian, M.G. Parusinski, K.Cheng
Purpose: Finalize the inception report check any mistakes

Meeting 11 - 28.10.2010

People present: Dr. Dirk, S.Benhaim, J.Bullian, M.G. Parusinski, K.Cheng
Purpose: Ask the supervisor to check the inception report and ask questions about the litterature
Tasks:

- Additional corrections for inception report

Meeting 12 - 29.10.2010

People present: S.Benhaim, J.Bullian, M.G. Parusinski, K.Cheng
Purpose: Agree on tasks for first iteration
Tasks:

- Write constructer functions of Description Logic to allow modular design
- Give precedence rule for operators (like in logic)
- Add domain to the code and appropriate
- Rules as a abstract data type
- Add knowledge base to the proof system
- Use either type for outputs

For later:

- Sanity check