On written assignments

Formal regulations given by the study board
You should give in a written assigment during the course and have it
approved by the teacher in order to enter the oral exam.
(NB: Register for oral exam before 15th oct, independently of the
assignment)

Working with the assignment
You may work in groups of up to 3 persons (groups of one person also
allowed, but not recommended).
Each group should write a small report, 4–7 pages (or more, if you find it
convenient) that you give in at latest by 10 nov; the report should be
submitted to henning@ruc.dk as a pdf file which is then made available
for the other students on the course web (if approved).
On the last day of the course,15 nov, each group must give a short
presentation of the work for the rest of the class and be prepared for
discussion and questions (moe on time and format later).

General advise
Your results should be interesting for the other students, and you should
write your report targeted at your fellow students.
The report is not expected to be a perfect scientific paper, but is should be
understandable and informative for your fellow students.
It may be a good idea that you have in mind, that the report also should
provide a background for an interesting discussion for the oral exam.

It is strongly recommended that you discuss the progress of you work on
the assignment with the course teacher, and it is advised that you also
discuss preliminary versions of the report with the teacher as there no
time to correct a report of (very unlikely) it is rejected.

Finally it is important to avoid too ambitious works that explode in time,
and it as also a good idea to start as early as possible so that you do not
have to do all the work the week before giving in your report.

Topics for the assignment
Each group or single student should agree with the course teacher on a particular topic. You are welcome to propose your own idea, but be critical with the level of ambition so that the work with the assignment does not explode in implementation details. It is always a good idea to base such an assignment and report a small implementation as this gives you something concrete to explain. Purely theoretical works are also possible, but may in practice turn out to be more difficult than an implementation oriented topic.

You should contact the course teacher as soon as possible to make this agreement.

Some proposals
During the course we have worked with different exercises and some of them may be expanded to form starting point for an assignment; there were also some explicit proposals for "projects" which can be used. Here is a list of some possibilities; you can find the mentioned documents on the course web.

"Exercises on Abductive reasoning in Prolog and CHR"
– Exercise 2.1+2.2 combined
– Programming project (section 3; part 1 is sufficient if solved properly and explained well, and try only part 2, if you have solved part 1 properly)

"Examples and exercises for DCG, syntax analysis and discourse comprehension". The mentioned programming project (section 6). Solved the right way, the solution is quite straightforward but if you have problems of undestanding Prolog and DCG, you may end up having written a very complicated solution that does not work — so it may be a good idea to ask the teacher for some advise.

"Exercises on fuzzy expert systems"
Theroretical project (section 6); may be difficult to reach a kind of overview and is only recommended of you have a further interest in the field.
Practical project (section 7); this assignment can only be recommended for students who are highly skilled programmers and who have experience with simulation models (e.g., discrete event modelling) and are familiar with relevant programming tools.

Other relevant topics could be chosen within Bayesian modeling (or other statistically based methods), neural networks, and evolutionary computing. These topics are not treated at the course yet, so this is probably only relevant if you have some knowledge one of these areas in advanced.

One proposal for a project related to statistic based methods is to look at a system called PRISM (T.Sato, et al) and give a short description of the system and show one very small application (maybe taken from available papers or developed yourself).