

Problem set 4, Code, Semantic analysis

TDT4205, Spring 2014

Deadline: 05.03.2014 at 22.00 Contact course staff if you cannot meet the deadline.

Evaluation: Pass/fail

Delivery: Use It's Learning. Deliver exactly one file:

- *yourusername_code_ps4*.{*zip* |*tar.gz* |*tar*} containing your modified versions of the files:
 - *bindnames.c*
 - *typecheck.c*

If you work in a group, only one member needs to deliver. Remember to clearly indicate the other member.

Cooperation: You may work alone, or in groups of two students.

General notes: Code must compile and run on `login.stud.ntnu.no`. You should only make changes to the files indicated. Do not add additional files or third party code/libraries.

Problem 1, Symbol tables

Implement the following functions in *bindnames.c*, implementing the symbol table entry/retrieval as described in the recitation slides:

- `bind_function()`
- `bind_declaration_list()`
- `bind_class()`
- `bind_function_list()`
- `bind_declaration()`
- `bind_variable()`
- `bind_expression()`
- `create_symbol()`
- `create_function_symbol()`

Problem 2, Type checking

Implement the following functions in *typecheck.c*, implementing type checking as described in the recitation slides:

- `typecheck_default()`
- `typecheck_expression()`
- `typecheck_variable()`