Structure of Programming Languages I: Denotational Semantics

Assignments

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Please return the completed results by February 1. Put them in an envelope, address it to me, and put it into some university mail box. If there are problems, feel free to contact me per email. Do not forget to denote your name, Matrikelnummer and Studienkennzahl (SKZ).

1. Add to the language presented in "A Block-Structured Language" the declaration

   ```
   var I := E
   ```

   and update the denotational semantics (you probably have to redefine the valuation function **D**). Prove that the semantics of

   ```
   begin D;C end
   ```

   has remained the same (assuming that D does not use the new construct).

2. Augment the file editor discussed in class with environments by introducing the notion of *windows* into the editor. A user of the file editor can move from one window to another and is able to manipulate more than one file concurrently during a session. The user may create a new window, close a window (its contents are stored to a file), and exit the session (the contents of all windows are stored to files).