

Theory of Multi-Paradigm Programming Languages

Lecture 4-1-1

C/Unix Homework

Overview

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Contents

- **C/Unix Homework**
 - Factorial Example in C.
 - Convert to C.
 - Execute it on Unix.
 - Script the execution process as shown.
 - Need to extend the output for the high-lighted in dark blue.
- **Special lecture on Friday**
 - Cloud server
 - Unix/Shell
 - Homework exercise
- **Submit the script on Wednesday at the zoom in an output file.**

Homework C-1

```
program factorial_trace;  
  function f(n: integer): integer;  
  begin  
    writeln('->f(', n, ')');  
    if n=0 then f:=1 else f := n*f(n-1);  
    writeln('<-f(', n, ')');  
  end;  
begin  
  f(3);  
end;
```

```
->f(3)  
  -> f(2)  
    -> f(1)  
      -> f(0)  
        <- f(0) = 1  
      <- f(1) = 1  
    <- f(2) = 2  
  <- f(3) = 6
```

Homework: Output

- › script p.output
- › env
- › whoami
- › date
- › pwd
- › w
- › ls -l
- › gcc p.c
- › ls -l
- › a.out
- › ^D