

# Compiler Construction

## Supervision 4

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All work should be submitted in PDF form 36 hours before the supervision to the email `josi2@cam.ac.uk`. If you have any questions on the course please include these at the top of the supervision work and we can talk about them in the supervision.

1. What is the job of a linker?
2. How could we OO classes with single inheritance. Describe the memory layout and how we could implement virtual methods.

Use these classes as an example

```
class P { int a, int b; int f() {...} }  
class Q extends P { int c; int f() {...}; int g() {...} }
```

3. <http://www.cl.cam.ac.uk/teaching/exams/pastpapers/y2012p3q5.pdf>
4. <http://www.cl.cam.ac.uk/teaching/exams/pastpapers/y2011p3q4.pdf> (c,d)
5. Give three options for handling memory for each given list advantages and disadvantages.
6. Given that we decide to use trace GC, what two methods could be used after tracing to free memory list advantages and disadvantages.