Kernel code and data

Memory mapped region for shared libraries

Runtime heap (via malloc)

Uninitialized data (.bss)

Initialized data (.data)

Code (.text)

User stack

Physical memory

Process-specific data structures (e.g., page tables, task and mm structs, kernel stack)

Kernel virtual memory

Identical for each process

Different for each process

Process virtual memory

%rsp

brk

0x400000

0

Process

virtual

memory

Physical memory

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