CpS 230 Homework 4: Linking

Answer key for jpjuecks (FOR OFFICIAL USE ONLY)

Worksheet Answers

For each section below, cap any deductions at the section max. E.g., if a section is worth *5 points*, take off no more than *5 points* for that section.

1. Concatenate Sections *(5 pts)*

Mark off *1 point* for each incorrect table cell.

Module/Section	Relative Offset	Loaded Address
hen.text	0	0x6a800
jackal.text	32	0x6a820
hen.data	64	0x6a840
jackal.data	80	0x6a850

2. Resolve Symbols *(10 pts)*

Mark off *1 point* for each incorrect table cell, except in cases where an entire row is out-of-order but is otherwise correct. In such cases, mark off *1 point* for each misplaced (but otherwise correct) row.

Symbol	From	Offset	Loaded Address
_drill	hen.text	3	0x6a803
_level	hen.text	17	0x6a811
_hammer	jackal.text	5	0x6a825
scooter	jackal.data	10	0x6a85a

3. Apply Relocations *(15 pts)*

Mark off *1 point* for each incorrect table cell, except in cases where an entire row is out-of-order but is otherwise correct. In such cases, mark off *1 point* for each misplaced (but otherwise correct) row.

Section	Offset	Site	Target	Kind	Orignal Value	Adjusted Value
hen.text	4	0x6a804	hen.data	DIR32	0x4	0x6a844
hen.text	10	0x6a80a	scooter	DIR32	0x0	0x6a85a
hen.text	18	0x6a812	scooter	DIR32	0x0	0x6a85a
hen.text	24	0x6a818	hen.data	DIR32	0x0	0x6a840
jackal.text	10	0x6a82a	jackal.data	DIR32	0x2	0x6a852
jackal.text	15	0x6a82f	_drill	REL32	0x0	0xffffffd0
hen.data	4	0x6a844	_hammer	DIR32	0x0	0x6a825