

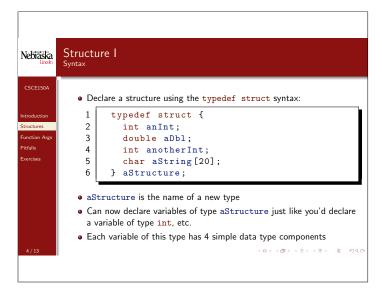
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Nebraska Lincoln	Introduction
CSCE150A Introduction Structures Function Args Pitfalls Exercises	 We've seen built-in simple data types: int, double, char, etc. Simple data types hold one value at any one time Complex data types can hold a collection of values
2 / 13	(B) (B) (E) E VQC

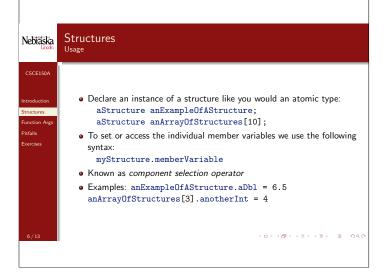
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Nebraska Lincoln	Structures
CSCE150A Introduction Structures Function Args Pitfalls Exercises	 C allows user-defined complex types through the use of <i>structures</i> Structures are data types that have <i>components</i> Components can either be simple data types or other structures
3 / 13	(D) (B) (E) (E) & DQC

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Nebiaska _{Lincoln}	Structures Motivation
CSCE150A introduction itructures unction Args Pitfalls exercises	 Certain data need to be logically grouped together Records in a database: data associated with a single person should be kept together A person may consist of first name, last name, NUID, birth date, etc. In turn, a birth date has a month, day, year Structures allow us to define such records
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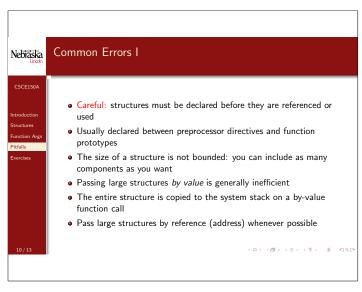
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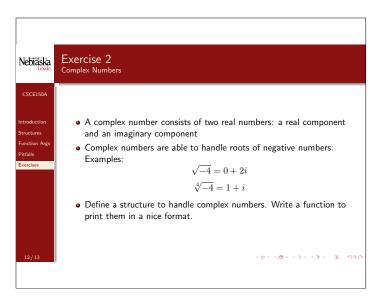
Nebraska Lincoln	Structures As Function Arguments
CSCE150A Introduction Structures Function Args Pitfalls Exercises	 It is possible to pass and return structures as function arguments Same syntax as simple data types You can pass by value or by reference (address, array)
8/13	<pre>void printStudentRecordByValue(student s); void printStudentRecordByRef(student *s);</pre>

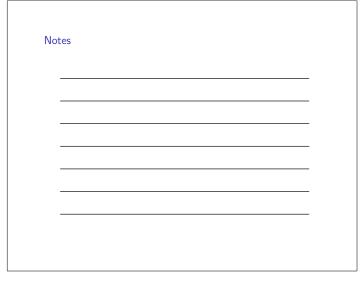
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Nebraska Lincoln	Returning Structures
CSCE150A Introduction Structures Function Args Pidfalls Exercises	 As with arrays, we cannot return structures that are <i>local</i> in scope We must return a <i>pointer</i> to a dynamically allocated structure We haven't covered this in class, but it is in the textbook
9 / 13	1 B 1 (B) 1 E 1 E 2 9 Q (P









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