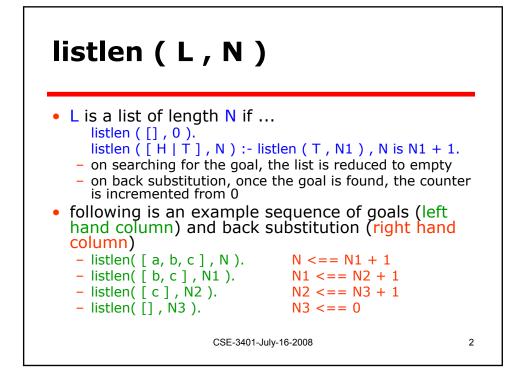
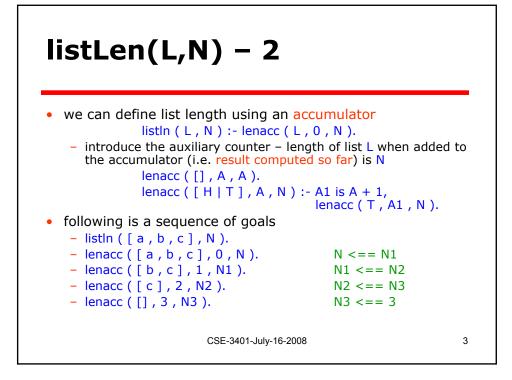
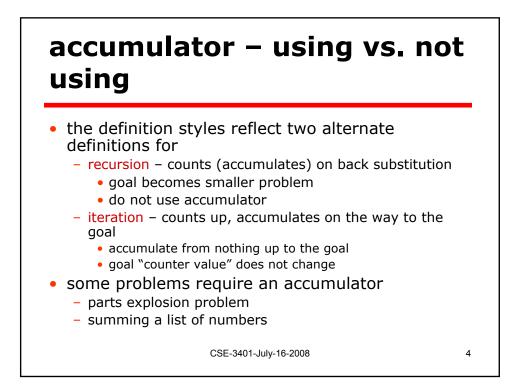
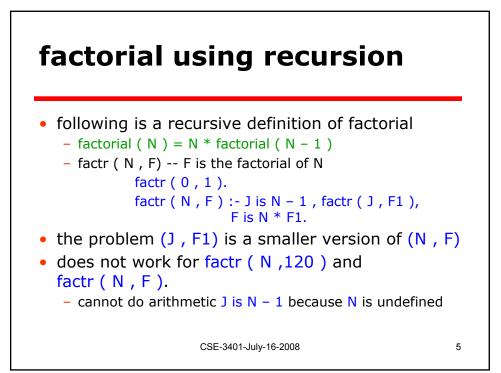


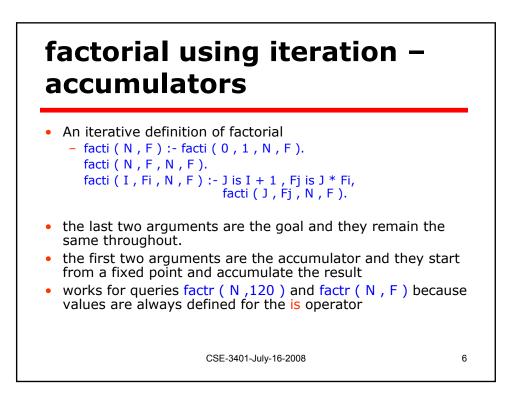
Shakil M. Khan adapted from Gunnar Gotshalks

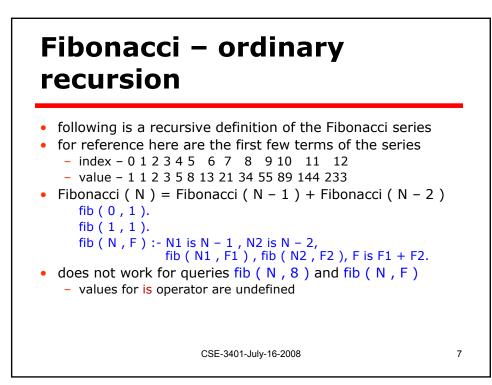


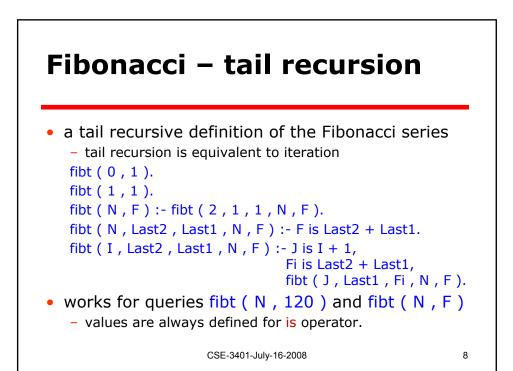


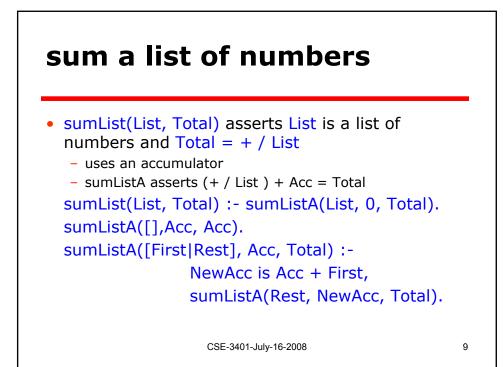


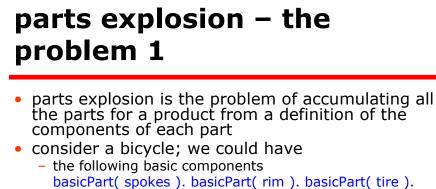








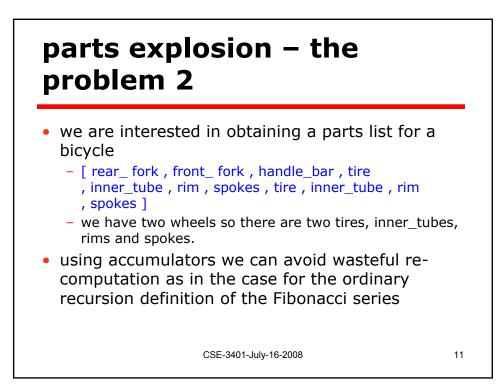


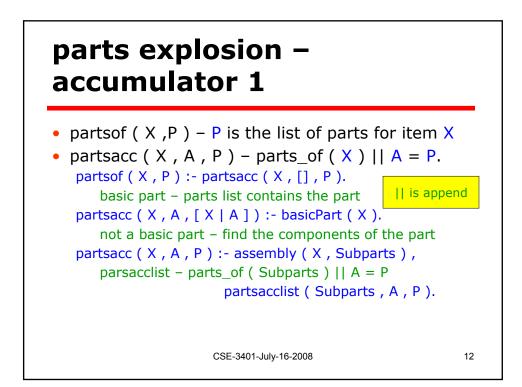


basicPart(inner_tube). basicPart(handle_bar). basicPart(front_ fork). basicPart(rear_fork).

 the following definitions for sub assemblies assembly(bike, [wheel, wheel, frame]).
 assembly(wheel, [spokes, rim, wheel_cushion]).
 assembly(wheel_cushion, [inner_tube, tire]).
 assembly(frame, [handle_bar, front_fork, rear_fork]).

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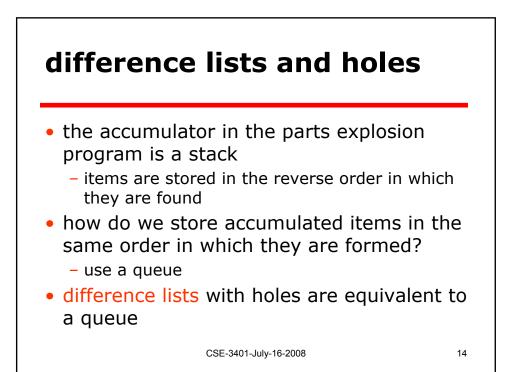
parts explosion – accumulator 2

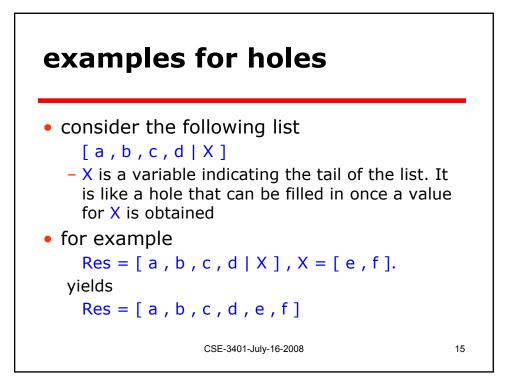
partsacclist (ListOfParts , AccParts , P)

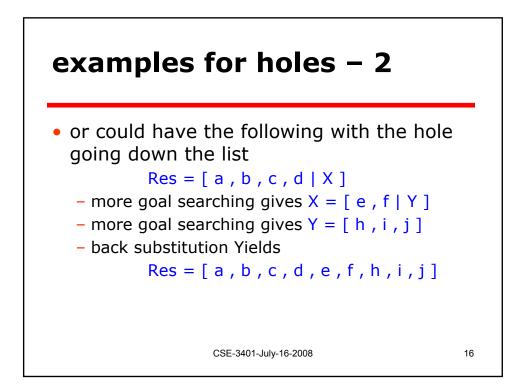
 parts_of (ListOfParts) || AccParts = P
 no parts → no change in accumulator
 partsacclist ([], A, A).
 partsacclist ([Head | Tail], A, Total): get the parts for the first on the list
 partsacc (Head, A, HeadParts)
 and catenate with the parts obtained from the rest of the ListOfParts
 , partsacclist (Tail, HeadParts, Total).

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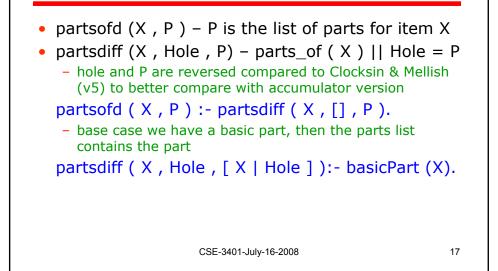
13



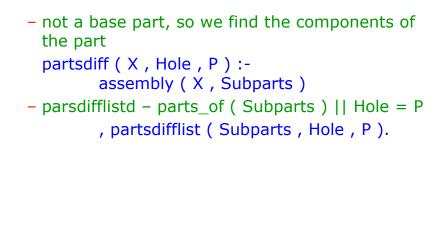




parts explosion – difference list 1

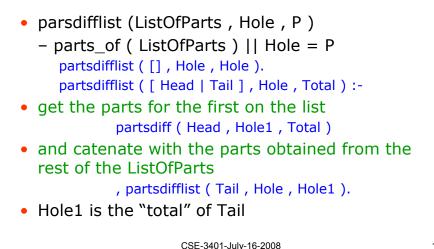


parts explosion – difference list 2



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parts explosion – difference lists 3



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compare accumulator with hole

partsof (X , P) :- partsacc (X , [] , P). Accumulator partsofd (X , P) :- partsdiff (X , [] , P). Difference/Hole

partsacc (X , A , [X | A]) :- basicPart (X).
partsdiff (X , Hole , [X | Hole]) :- basicPart (X).

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compare accumulator with hole – 2

