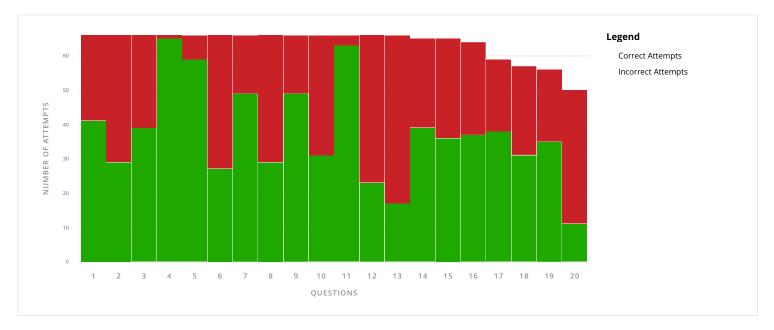


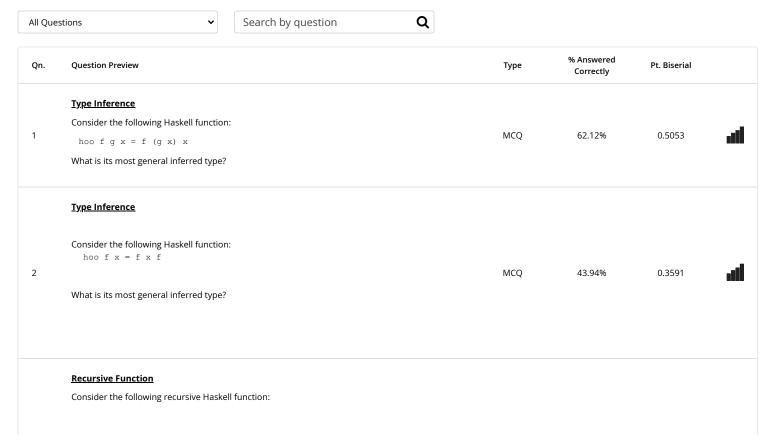
Questions Students

CLASS STATISTICS



QUESTION STATISTICS





```
sM p f xs = case xs of
             [] -> []
              x:xs \rightarrow if p x then (f x):(sM p f xs)
3
                                                                                                      MCQ
                                                                                                                      59.09%
                                                                                                                                       0.5244
                      else x:(sM p f xs)
        What is the inferred type of this method?
        Recursive Function
        Consider the following recursive Haskell function:
        sM p f xs = case xs of
             [] -> []
4
                                                                                                      MCQ
                                                                                                                      98.48%
                                                                                                                                       -0.0261
              x:xs \rightarrow if p x then (f x):(sM p f xs)
                      else x:(sM p f xs)
        What would be computed by (sM (\x -> x>5) (\x -> x+1) [4,5,9,8,0])?
        Recursive Function
        Consider the following recursive Haskell function:
        sM p f xs = case xs of
              [] -> []
              x:xs \rightarrow if p x then (f x):(sM p f xs)
5
                                                                                                      MCQ
                                                                                                                      89.39%
                                                                                                                                       0.1757
                      else x:(sM p f xs)
         Implement this (sM p f xs) function using foldr instead where
               foldr :: Foldable t => (a -> b -> b) -> b -> t a -> b
        Monad
        Consider the following monadic Haskell function:
        foo3 [m] x
                     = m x
                                                                                                      MCQ
                                                                                                                      40.91%
                                                                                                                                       0.3399
        foo3 (m:xs) x = m x >>= (\r -> foo3 xs r)
        What is the most general type of this method?
        <u>Monad</u>
        Consider the following monadic Haskell function:
        foo3 [m] x = m x
7
                                                                                                      MCQ
                                                                                                                      74.24%
                                                                                                                                       0.4112
        foo3 (m:xs) x = m x >>= (\r -> foo3 xs r)
        What would be returned by (let f = a->[a,a+1] in foo3 [f,f] 1)?
        <u>Monad</u>
        Consider the following monadic Haskell function:
                      = m x
        foo3 [m] x
        foo3 (m:xs) x = do
                                                                                                     MCQ
                                                                                                                                       0.0705
8
                            r <- m x
                                                                                                                      43.94%
        What would be returned by
           (let f = a\rightarrow ((putStr(show (4+a))) >> return (a+1)) in foo3 [f,f] 1)?
        Grammar Rules
        Consider the following grammar rules:
               ::= 01 | 10 | 1
                                                                                                                      74.24%
                                                                                                                                       0.2584
```

Which of the following is not a member of the language with start symbol? **Grammar Rules** Consider the following grammar rules: MCQ 46.97% 0.4273 10 ::= 01 | 10 | 1 How many distinct strings can be formed by the language with start symbol? **Unification** Consider the following unification of two Prolog terms 95.45% 11 MCQ -0.0458 f(g(a,A),B,d) = f(C,g(c),D)Which of the following is **not** an outcome of this unification? **Prolog** Consider the following Prolog program mixed([],L2,L2). mixed(L1,[],L1). mixed([H1|T1],[H2|T2],[H1|T3]) := mixed(T1,[H2|T2],T3).12 MCQ 34.85% 0.4943 mixed([H1|T1],[H2|T2],[H2|T3]) :- mixed([H1|T1],T2,T3).How many solutions will be generated by the query mixed([1,2],[a,b],R)? **Prolog** Consider the following Prolog program mixed([],L2,L2). mixed(L1,[],L1). 25.76% 0.5277 13 $\label{eq:mixed} \texttt{mixed([H1 | T1], [H2 | T2], [H1 | T3])} \ :- \ \texttt{mixed(T1, [H2 | T2], T3)} \ .$ MCQ mixed([H1|T1],[H2|T2],[H2|T3]) :- mixed([H1|T1],T2,T3).Prolog utilizes depth-first search which select clauses for unification in a top-down fashion, and processes goals in a left-to-right order. Based on this search strategy. what is the third solution of the query mixed([1,2],[a,b],R)? **Prolog** Consider the following Prolog program mixed([],L2,L2). mixed(L1,[],L1). 14 MCQ 60% 0.3264 mixed([H1|T1],[H2|T2],[H1|T3]) :- mixed(T1,[H2|T2],T3).mixed([H1|T1],[H2|T2],[H2|T3]) :- mixed([H1|T1],T2,T3).A query contains redundant solution if it has multiple results with identical variable substitutions. Which of the following query contains redundant solutions? **Prolog** Consider the following Prolog program MCQ 55.38% 0.4145 15

11/4/2020		Quiz Statistics - LumiNUS			
	qoo([X R],R). qoo([X L],R) := qoo(L,R).	•			
	How many solutions would be returned by the query $qoo\left(\left[1,2,3\right],R\right)$?			
	Prolog				
	Consider the following Prolog program				
16	qoo([X R],R). qoo([X L],R) := qoo(L,R).	MCQ	57.81%	0.4343	-11
	Which of the following is not a solution of the query $qoo\left(R,\left[1,2\right]\right)$?				
	Prolog				
	Consider the following Prolog program				
17	poo([],0).	MCQ	64.41%	0.4273	-41
	poo([X Xs],S) := poo(Xs,R), S is X+R. Which of the following is valid solution of the query $poo([3,2,1],R)$?				
	Third of the following is valid solution of the query poor (1972) 1171.				
	Prolog				
	Consider the following Prolog program				_
18	<pre>poo([],0). poo([X Xs],S) := poo(Xs,R), S is X+R.</pre>	MCQ	54.39%	0.3173	
	Which of the following is a valid result of the query $poo([3,X,1],R)$?				
	Prolog				
	Consider the following Prolog program				
19	doo([],0).	MCQ	62.5%	0.3523	
	doo([_ Xs],S) :- doo(Xs,R), S is 1+R.				
	Which of the following is a valid result of the query $doo([3,X,1],R)$?				
	Prolog				
	Consider the following Prolog program				_
20	<pre>doo([],0). doo([_ Xs],S) :- doo(Xs,R), S is 1+R.</pre>	MCQ	22%	0.1729	
	Which is the <i>second result</i> of the query doo(R, 3) ?				