

Step 1 : create database

create database call tree

create table named :

a) scientificname :

Name	Type ?	Length/Values ?	I
<input type="text" value="SP-Code"/>	<input type="text" value="VARCHAR"/>	<input type="text" value="5"/>	
<a href="#">Pick from Central Columns</a>			
<input type="text" value="Local-Name"/>	<input type="text" value="VARCHAR"/>	<input type="text" value="20"/>	
<a href="#">Pick from Central Columns</a>			
<input type="text" value="Gen-Code"/>	<input type="text" value="VARCHAR"/>	<input type="text" value="20"/>	
<a href="#">Pick from Central Columns</a>			
<input type="text" value="SP-Name"/>	<input type="text" value="VARCHAR"/>	<input type="text" value="20"/>	
<a href="#">Pick from Central Columns</a>			
<input type="text" value="Royal-Class"/>	<input type="text" value="VARCHAR"/>	<input type="text" value="20"/>	
<a href="#">Pick from Central Columns</a>			

**Table comments:**

**Collation:**

import scientificname. Csv

b) speciesname :

Structure SQL Search Query Export

Table name:  Add 1

Name	Type	Length/Values	De
<input type="text" value="No"/>	INT	255	
<small>Pick from Central Columns</small>			
<input type="text" value="SPECODE"/>	VARCHAR	5	
<small>Pick from Central Columns</small>			
<input type="text" value="Local-Name"/>	VARCHAR	50	
<small>Pick from Central Columns</small>			
<input type="text" value="SPEC-Gr"/>	INT	10	
<small>Pick from Central Columns</small>			
<input type="text" value="ROY_CLASS"/>	VARCHAR	20	
<small>Pick from Central Columns</small>			
<input type="text" value="COMM-Gr"/>	VARCHAR	20	
<small>Pick from Central Columns</small>			
<input type="text" value="Dip/NonDip"/>	VARCHAR	10	
<small>Pick from Central Columns</small>			

Table comments:

Collation:

PARTITION definition:

import species.csv

c) damagetree (change int for cut\_tree and victim to varchar)

Structure SQL Search Query Export

Table name:  Add

Name	Type	Length/Values	De
<input type="text" value="id"/>	INT	255	
<small>Pick from Central Columns</small>			
<input type="text" value="Cut_tree"/>	INT	10	
<small>Pick from Central Columns</small>			
<input type="text" value="Victim"/>	INT	500	
<small>Pick from Central Columns</small>			
<input type="text" value="Category_Damage"/>	INT	2	
<small>Pick from Central Columns</small>			

d) victim

Table structure		Relation view	
#	Name	Type	Collation
<input type="checkbox"/> 1	<b>victim</b>	varchar(10)	utf8mb4_general_c
<input type="checkbox"/> 2	<b>cut_tree</b>	varchar(500)	utf8mb4_general_c

☐ Check all    With selected: E

e) newforestori (set coordinate as varchar sorry mb)



Table structure



Relation view

	#	Name	Type	Collation	Attributes
<input type="checkbox"/>	1	Id	int(11)		
<input type="checkbox"/>	2	BlockX	int(10)		
<input type="checkbox"/>	3	BlockY	int(10)		
<input type="checkbox"/>	4	x	int(100)		
<input type="checkbox"/>	5	y	int(100)		
<input type="checkbox"/>	6	coordinate	int(10)		
<input type="checkbox"/>	7	Treenum	varchar(9)	utf8mb4_general_ci	
<input type="checkbox"/>	8	species	varchar(4)	utf8mb4_general_ci	
<input type="checkbox"/>	9	spgroup	int(7)		
<input type="checkbox"/>	10	Diameter	float		
<input type="checkbox"/>	11	DiameterClass	int(10)		
<input type="checkbox"/>	12	StemHeight	float		
<input type="checkbox"/>	13	volume	float		
<input type="checkbox"/>	14	status_tree	varchar(10)	utf8mb4_general_ci	
<input type="checkbox"/>	15	Cut_Angle	int(11)		
<input type="checkbox"/>	16	Damage	int(11)		



☐ Check all

With selected:

 Browse
  Chan

Step 2 : Run create\_forest.php

- Run it for 4 time to get 10 000 ++ data

Step 3 Run Sql Code in the new forest ori

1. UPDATE newforestori INNER JOIN speciesname ON newforestori.species = speciesname.No SET newforestori.species = speciesname.No
2. UPDATE newforestori SET Volume = 3.142 \* POW((Diameter / 200), 2) \* StemHeight \* 0.50
3. UPDATE newforestori SET TreeNum = CONCAT('T', LPAD(BlockX, 2, '0'), LPAD(BlockY, 2, '0'), LPAD(x, 2, '0'), LPAD(y, 2, '0'))
4. UPDATE newforestori SET status\_tree = CASE WHEN spgroup IN (1, 2, 3, 5) AND Diameter > 45 THEN 'Cut' WHEN spgroup IN (1, 2, 3, 5) AND Diameter <= 45 THEN 'Keep' ELSE status\_tree END
5. UPDATE newforestori SET Cut\_Angle = CASE WHEN status\_tree = 'Cut' THEN FLOOR(RAND() \* 360) + 1 ELSE NULL EN
6. UPDATE newforestori INNER JOIN speciesname ON speciesname.No = newforestori.species SET newforestori.species = speciesname.SPECODE
7. INSERT INTO victim (Victim, cut\_tree, Category\_damage) SELECT Victim, cut\_tree, Category\_damage FROM damagetree;
8. UPDATE newforestori nf  
INNER JOIN (  
SELECT Cut\_tree,  
SUM(CASE WHEN Category\_Damage = 1 THEN 1 ELSE 0 END) AS stem\_victim  
\_count,  
SUM(CASE WHEN Category\_Damage = 2 THEN 1 ELSE 0 END) AS crown\_  
victim\_count  
FROM damagetree  
GROUP BY Cut\_tree  
) AS dt ON nf.cut\_tree = dt.Cut\_tree  
SET nf.Damage\_stem = dt.stem\_victim\_count,  
nf.Damage\_crown = dt.crown\_victim\_count;

Step 4 : run find\_damage.php

- For produce the victim table

Step 5 : run find\_victim.php

- For produce the cut table