BIO 211 CURE DATA – Example filled-out data sheet for database submission

This is an example data sheet filled-out as if:

1. A group consisting of two students (John Smith and Lisa Simpson) had 8 experimental plants
   a. The plants were of genotype COL70000 and SALK_99999C
   b. Two of each genotype were grown in a high salt treatment and two of each genotype were grown in tap water

2. Three traits were measured at the first time point (1/1/13)
   a. All sections of 211 measured rosette diameter (in millimeters)
   b. John and Lisa's section measured number of rosette leaves as a class trait
   c. John and Lisa chose number of flowers as their group trait to measure at the first time point

3. Four traits were measured at the second time point (2/15/13)
   a. All sections of 211 measured fruit number
   b. John and Lisa's section measured plant height as their class trait
   c. John and Lisa chose to measure two traits as a group – the length of the third fruit and the total number of branches

4. Looking at the metadata sheet you will see that John and Lisa studiously filled in information correctly in all yellow highlighted cells (*as expected – would Lisa Simpson ever not follow directions correctly?)*
   a. The traits "Number of rosette leaves," "Plant height," and "Total Number of Branches" already had codes designated (they are listed in the table on the instructions sheet).
   b. John and Lisa had to come up with trait codes on their own for the other traits they measured ("Number of flowers," and "length of third fruit")
      i. For both, they chose codes that were short but descriptive, didn't contain any spaces and did not begin with a number
   c. John and Lisa also gave short but thorough descriptions of how they measured each trait in the second set of tables

Looking at the data sheet now you will see that each row represents a single measurement from a single plant. They measured seven traits in 8 plants and thus have 56 rows of data.

Spring 2013 BIO 211 CURE Metadata: cells highlighted in yellow must be filled out!

Step 1: Fill out the table below with information about the class traits and group trait(s) you measured at each timepoint. The handout on the unPAK website explains what information to include. *(Note: not all groups will have a group trait 2 and group trait 4)*

MEASUREMENTS AT 1ST TIMEPOINT			
TRAIT	**TRAIT CODE**	**UNITS DESCRIPTION**	**UNIT CODE**
number of rosette leaves	*rleafnum*	*indvidual leaves*	*individual leaves*
number of flowers	*flower_num*	*individual flowers*	*individual flowers*

MEASUREMENTS AT 2ND TIMEPOINT			
TRAIT	**TRAIT CODE**	**UNITS DESCRIPTION**	**UNIT CODE**
plant height	*height_snapshot*	*centimeters*	*cm*
length of third fruit	*thirdfruit_length*	*milimeters*	*mm*
total number of branches	*totalbranch_snapshot*	*individual branches*	*individual branches*

Step 2: Fill out the tables below with information detailing how you measured each trait.

MEASUREMENTS AT 1ST TIMEPOINT		
TRAIT	**TRAIT CODE**	**DESCRIPTION OF MEASUREMENT TECHNIQUE**
Rosette diameter	rdiam_snapshot	measured the diameter at the widest point using a ruler
Class trait 1	rleafnum	counted the number of individual rosette leaves
Group trait 1	flower_num	counted the number of flowers (including buds, excluding fruits)

MEASUREMENTS AT 2ND TIMEPOINT		
TRAIT	**TRAIT CODE**	**DESCRIPTION OF MEASUREMENT TECHNIQUE**
Fruit number	fruitnum_snapshot	counted the number of fruits larger than 5mm in length
Class trait 2	height_snapshot	measured the height of the main branch using a ruler
Group trait 3	thirdfruit_length	measured the length of the third fruit (counted from the base of the plant up) using a ruler
Group trait 4	totalbranch_snapshot	Counted the total number of branches (not counting the main stem)

Experiment	Institution	Facility	Treatment	Accession	Plant_ID	Trait	Value	Units	Date_Measured	Name	Contact
S13_211CURE	COFC	NGH	high salt	COL70000	1	rdiam_snapshot	14.2	mm	1/1/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	high salt	COL70000	2	rdiam_snapshot	13.1	mm	1/1/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	tap	COL70000	3	rdiam_snapshot	12	mm	1/1/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	tap	COL70000	4	rdiam_snapshot	9	mm	1/1/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	high salt	SALK_999999C	5	rdiam_snapshot	10.2	mm	1/1/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	high salt	SALK_999999C	6	rdiam_snapshot	9.5	mm	1/1/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	tap	SALK_999999C	7	rdiam_snapshot	6.8	mm	1/1/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	tap	SALK_999999C	8	rdiam_snapshot	4	mm	1/1/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	high salt	COL70000	1	rleafnum	6	individual leaves	1/1/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	high salt	COL70000	2	rleafnum	7	individual leaves	1/1/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	tap	COL70000	3	rleafnum	9	individual leaves	1/1/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	tap	COL70000	4	rleafnum	8	individual leaves	1/1/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	high salt	SALK_999999C	5	rleafnum	10	individual leaves	1/1/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	high salt	SALK_999999C	6	rleafnum	12	individual leaves	1/1/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	tap	SALK_999999C	7	rleafnum	11	individual leaves	1/1/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	tap	SALK_999999C	8	rleafnum	13	individual leaves	1/1/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	high salt	COL70000	1	flower_num	0	individual flowers	1/1/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	high salt	COL70000	2	flower_num	1	individual flowers	1/1/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	tap	COL70000	3	flower_num	7	individual flowers	1/1/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	tap	COL70000	4	flower_num	9	individual flowers	1/1/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	high salt	SALK_999999C	5	flower_num	0	individual flowers	1/1/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	high salt	SALK_999999C	6	flower_num	0	individual flowers	1/1/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	tap	SALK_999999C	7	flower_num	5	individual flowers	1/1/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	tap	SALK_999999C	8	flower_num	8	individual flowers	1/1/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	high salt	COL70000	1	fruitnum_snapshot	0	individual fruits	2/15/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	high salt	COL70000	2	fruitnum_snapshot	2	individual fruits	2/15/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	tap	COL70000	3	fruitnum_snapshot	7	individual fruits	2/15/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	tap	COL70000	4	fruitnum_snapshot	9	individual fruits	2/15/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	high salt	SALK_999999C	5	fruitnum_snapshot	5	individual fruits	2/15/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	high salt	SALK_999999C	6	fruitnum_snapshot	6	individual fruits	2/15/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	tap	SALK_999999C	7	fruitnum_snapshot	10	individual fruits	2/15/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	tap	SALK_999999C	8	fruitnum_snapshot	12	individual fruits	2/15/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	high salt	COL70000	1	height_snapshot	10	cm	2/15/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	high salt	COL70000	2	height_snapshot	12.2	cm	2/15/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	tap	COL70000	3	height_snapshot	16.8	cm	2/15/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	tap	COL70000	4	height_snapshot	18	cm	2/15/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	high salt	SALK_999999C	5	height_snapshot	9.1	cm	2/15/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	high salt	SALK_999999C	6	height_snapshot	5	cm	2/15/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	tap	SALK_999999C	7	height_snapshot	12.7	cm	2/15/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	tap	SALK_999999C	8	height_snapshot	14	cm	2/15/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	high salt	COL70000	1	thirdfruit_length	6	mm	2/15/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	high salt	COL70000	2	thirdfruit_length	7.2	mm	2/15/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	tap	COL70000	3	thirdfruit_length	8.9	mm	2/15/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	tap	COL70000	4	thirdfruit_length	8.8	mm	2/15/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	high salt	SALK_999999C	5	thirdfruit_length	6.7	mm	2/15/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	high salt	SALK_999999C	6	thirdfruit_length	6.1	mm	2/15/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	tap	SALK_999999C	7	thirdfruit_length	5.8	mm	2/15/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	tap	SALK_999999C	8	thirdfruit_length	9.3	mm	2/15/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	high salt	COL70000	1	totalbranch_snapshot	1	individual branches	2/15/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	high salt	COL70000	2	totalbranch_snapshot	0	individual branches	2/15/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	tap	COL70000	3	totalbranch_snapshot	6	individual branches	2/15/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	tap	COL70000	4	totalbranch_snapshot	7	individual branches	2/15/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	high salt	SALK_999999C	5	totalbranch_snapshot	2	individual branches	2/15/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	high salt	SALK_999999C	6	totalbranch_snapshot	3	individual branches	2/15/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	tap	SALK_999999C	7	totalbranch_snapshot	5	individual branches	2/15/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu
S13_211CURE	COFC	NGH	tap	SALK_999999C	8	totalbranch_snapshot	8	individual branches	2/15/13	John Smith; Lisa Simpson	smithj@cofc.edu; simpsonl@cofc.edu