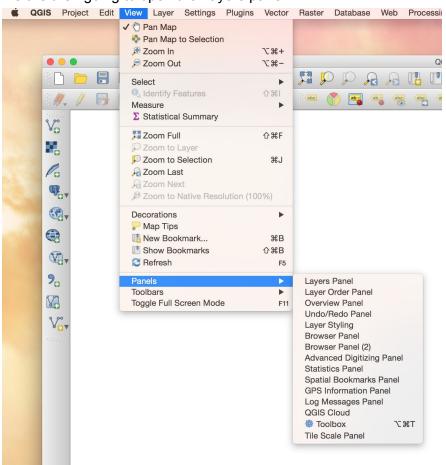
AADHUM Module 3 Movement of Persons Session 3 March 12, 2018

Let's open a new project in QGIS.

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We are then going to open the Layers panel.

QGIS will display the Layers panel on the left.

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	Coordinate -77.1825,38.97	04 🛞 Scale 1:131,205 🔽	Magnifier 100% C Rotation 0.0	🗘 🗹 Render 🚳 EPSG:4269 (OTF)

Now we can add a layer from PostGIS.

Connecti	ons			Add Post	GIS Table(s)			
QGISCI	oud in	kwav_vxeel	nj					\$
Conn	ect	New	Edit Remove	9			Load	Save
Schema	Ŧ	Table	Comment	Column	Data Type	Spatial Type	SRID	Featur
		s with no ge	ometry				Kee	p dialog oper
Searc	n opu	ons						
Help	Ac	id Se	et Filter					Close

We need to select a table from the public tables. Click on public to expand the list.

Connections			Add Post	GIS Table(s)			
QGISCloud in	kwav_vxeeh	i					0
Connect	New	Edit Remove	e			Load	Save
Schema ▲ ▶ public	Table	Comment	Column	Data Type	Spatial Type	SRID	Featur
Also list tables		metry				C Kee	ep dialog oper
Help	ld Set	t Filter					Close

We are going to build our map with the point\_list\_jenks table. In order to use it, we need to tell QGIS what the Feature ID of the table is. QGIS won't load the table without it.

Connect	New Edit Ren	nove						Load	Save
Schema	Table	Comm	Column	Data T	Spa	tial Type	SRID	Feature id	Select at
public	hist_african_american_c		geom	Ge	$\sim$	MultiPol	32618		
<u>A</u> p	point_list_jenks		geom	Ge	$\sim$	MultiPol	32618	Select	
A p	point_list_jenks_1990		geom	Ge	$\square$	MultiPol	32618	Select	
public	us_tract_1970_24033		geom	Ge	$\sim$	MultiPol	32618		Image: A start and a start
public	us_tract_1990		geom	Ge	$\square$	MultiPol	32618		
								_	
Also list tables	s with no geometry							C Kee	p dialog oper

Click on the Select... entry under Feature id for point\_list\_jenks.

Connect	New Edit Rem	iove						(	Load	Save
Schema ▲ ▼ public	Table	Comm	Column	Data T	Spa	tial Type	SRID	Feat	ture id	Select at i
public p p public public	hist_african_american_c point_list_jenks point_list_jenks_1990 us_tract_1970_24033 us_tract_1990		geom geom geom geom	Ge Ge Ge Ge	888	MultiPol MultiPol MultiPol MultiPol	32618 32618		gid gisjoin geom place_nam ienks_class	
Also list tables	s with no geometry ons	_							C Keep	dialog open

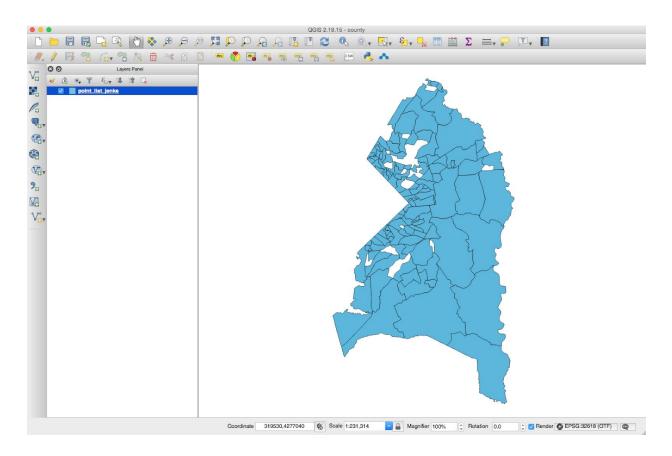
The field we want is gid. That's the ID field for this table. Click on the box to select it.

Connect	New Edit Rem	love							Load	Save
Schema 🔺	Table	Comm	Column	Data T	Spa	tial Type	SRID	Fea	ature id	Select at i
public	hist_african_american_c point_list_jenks point_list_jenks_1990 us_tract_1970_24033 us_tract_1990		geom geom geom geom	Ge Ge Ge Ge	88	MultiPol MultiPol MultiPol MultiPol	32618 32618 32618		gid gisjoin geom place_nam jenks_class	State of the second
Also list tables Search opti Help Ac					_				C Keep	o dialog oper

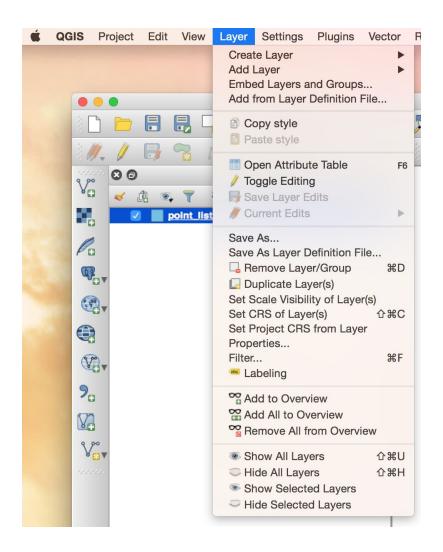
Now click on point\_link\_jenks again. It will highlight, indicating you can use it as a layer.

Connect	New Edit Rem	ove						Load	Save
chema 🔺	Table	Comm	Column	Data T	Spa	tial Type	SRID	Feature id	Select at i
public public	hist_african_american_c		geom	Ge	$\square$	MultiPol	32618		
public	point_list_jenks		geom	Ge	-	MultiPol	32618	gid	<u>_</u>
A p	point_list_jenks_1990		geom	Ge	0	MultiPol	32618	Select	
public	us_tract_1970_24033		geom	Ge	$\sim$	MultiPol	32618		
public	us_tract_1990		geom	Ge	$\square$	MultiPol	32618		
Also list tables	s with no geometry							Kee	ep dialog open

Click on the Add button, and after a short delay your layer will appear.



Let's set properties for this layer so that we can see what it can show us.



In the Layer Properties window, select Style from the left-hand side menu.

	🕺 Layer Properties - point_list_jenks   Style
General	Single symbol
	Simple fill
(abc Labels	
Fields	
Kendering	
🤎 Display	• • • • • • • • • • • • • • • • • • •
S Actions	Unit Millimeter
• Joins	Transparency 0%
Diagrams	· Color
🥡 Metadata	▼ Layer rendering
Variables	Layer transparency 0 0
E Legend	Layer blending mode Normal
	Feature blending mode Normal
	Draw effects
	Control feature rendering order
	Help Style Apply Cancel OK

This controls how the regions of the map are colored in. We want to change this from simple fill (all the regions are the same color) to rule-based (color changes based on some region property).

• •			🕺 Layer Properties -	point_list_jenk	s Style			
×	General	📔 Rule-based						0
~	Style	Label	Rule (no filter)	Min. scale	Max. scale	Count	Duplicate count	
abc	Labels							
	Fields							
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<b>—</b>	Display							
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•	Joins							oymbol levela
1	Diagrams	Refine selected rules	ι					
i	Metadata	Layer transparency	0					0
3	Variables							0 0
=	Legend	Layer blending mode	Normal	<b></b>				
-		Feature blending mode	Normal	0				
		Draw effects						-
		Control feature render	ing order					\$↓
		Help Style	Apply				Ca	ncel OK

We're going to add a rule by clicking on the green plus sign.

	🕨 💿 🛛 🌠 Edit rule
	Label     jenks_classification = 1       Filter     jenks_classification = 1
	Description
	Scale range
	Minimum (exclusive) Maximum (inclusive)
	☐ 1:100,000 < □
	Symbol
	Fill     Simple fill
	Unit Millimeter
	Transparency 0%
	Color
С	ОК

Click on the Color bar to open the Select color window. In the HTML notation field, enter #24ffeb . This will set the color to a light blue.

	💋 Select color
	О Н З29° С
	○ S 25% ◯
	● V B4% 🗘
	○ R 215 0
	G 161 0
	○ B 189 0
	Opacity
	HTML notation #24ffeb
Current	
Old	
	ОК

• • •	🕺 Edit rule
Label	jenks_classification = 1
Filter	jenks_classification = 1 Test
Description	
Scale r	ange
Minimum (e	exclusive) Maximum (inclusive)
) 1:10	0,000 🗸 🔯 🕀 1:1,000 🗸 🗠
🗸 Symbo	1
	Simple fill
Unit	Millimeter
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Color	<b></b>
	ОК

Hit OK. You can then see your selected color.

Hit OK. We're going to do four more of these, so that we have a rule for all five values of jenks\_classification. Add another rule by clicking on the green plus sign.

• •	🕺 Edit rule
	nks_classification = 2 nks_classification = 2 Test
Description	
Scale ran	ge
Minimum (ex	clusive) Maximum (inclusive)
) 1:100,	000 - 🔊 👉 1:1,000 - 🔊
🔽 Symbol	
<b>V Fill Fill S</b>	imple fill
Unit	Millimeter
Transparency	0%
Color	
	ОК

## Se

Click on the Color bar to set the color for the jenks\_classification = 2 rule. In HTML notation, enter #24c8ea .

• • •		🔏 Se	elect color
		1	О Н
	-		S 58% 🗘
			• V 88% 🗘
			O R 201 0
			G 224 C
			O B 95 0
			Opacity
			HTML notation #24cBea
Current		•	
Old			OK

Click on OK. You can see the color for the jenks\_classification = 2 rule in the window.

	🌠 Edit rule
Label jenks_c	classification = 2
Filter jenks_c	classification = 2 Test
Description	
Scale range	
Minimum (exclusiv	ve) Maximum (inclusive)
1:100,000	<ul> <li>Image: second sec</li></ul>
Symbol	
Fill Simple	
Unit	Millimeter
Transparency 0%	0
Color	
	ОК

Let's keep going. We're adding a rule for jenks\_classification = 3. Click on the green plus sign to add it.

	🕺 Edit rule
	jenks_classification = 3 jenks_classification = 3 Test
Description	
Scale	range
Minimum	(exclusive) Maximum (inclusive)
<b>)</b> 1:1	00,000 🗸 🔊 🕀 1:1,000 🗸 🔊
Symbo	bl
Unit	Millimeter
Transpare	
Color	
00.01	· · · · · · · · · · · · · · · · · · ·
	ОК

Click on the Color bar to set the color for this rule.

• • •	2	Select color
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		O V 68% €
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		G 104 C
		B 135 C
		Opacity
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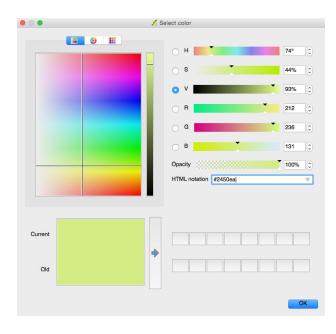
In HTML notation, enter #24a0ea . Then click on OK.

00	🌠 Edit rule
Label	jenks_classification = 3
Filter	jenks_classification = 3 Test
Description	
Scale	range
Minimum	(exclusive) Maximum (inclusive)
<b>)</b> 1:1	00,000 🗸 🖾 🖓 1:1,000 🗸 🖾
🗹 Symbo	ol
	Simple fill
<b>+</b>	
Unit	Millimeter
Transpare	ancy 0%
Color	· · · · · · · · · · · · · · · · · · ·
	ОК

The blues are getting darker for each new rule we add, which is what we want. We're adding the rule for jenks\_classification = 4 now. Click on the green plus sign to add it.

	🕺 Edit rule		
-	Label jenks_classification = 4		
I men je	nks_classification = 4 Test		
Description			
Scale rar	Ige		
Minimum (ex	clusive) Maximum (inclusive)		
<b>)</b> 1:100,	000 🔍 💽 🍠 1:1,000 🔍 🔊		
🗸 Symbol			
T Fill			
Simple fill			
Unit	Millimeter		
Transparenc	y 0% ·		
Color			
	ОК		

Click on the Color bar to pick the color for this rule.



In HTML notation, enter #2450ea . Then click OK.

00	🕺 Edit rule
Label Filter	jenks_classification = 4 Test
Description	range
	(exclusive) Maximum (inclusive)
	00,000
Symbo	bl
F	Simple fill
<b>+</b>	
Unit	Millimeter
Transpare	ncy 0% •
Color	
	ОК

This is a much darker blue than the one we picked for our first rule. Last rule now, for jenks\_classification = 5. Click on the green plus sign to add it.

• •	🕺 Edit rule
Label	jenks_classification = 5
Filter	jenks_classification = 5 Test
Description	
Scale	range
Minimum	(exclusive) Maximum (inclusive)
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Symb	ol
The second se	
Unit	Millimeter
Transpare	ency 0%
Color	
	ОК

Click on the Color bar to set the color for this rule.

	💋 Sel	lect color	
		Он	276° 🗘
		⊖ s	92%
		• v	82%
			131 🗘
		⊖ G <b>¥</b>	16 🗘
		ОВ	208
		Opacity	100% 🗘
		HTML notation #2400ea	▽
Current			
	⇒		
Old			
			ОК

In HTML notation, enter #2400ea . Then click OK.

• •	🕺 Edit rule
Label Filter	jenks_classification = 5 Test
Description	
Scale	range
Minimum	(exclusive) Maximum (inclusive)
1:1	00,000 🕑 🔤 📌 1:1,000 🕑 🞼
🗸 Symb	ol
The second secon	
Unit	Millimeter
Transpare	ancy 0%
Color	
	ОК

The color for our last rule is a dark blue. Click OK.

		🕺 Layer Properties - p	oint_list_jenk	s   Style			
K General	E Rule-based						<b>\$</b>
🥳 Style	Label	Rule (no filter)	Min. scale	Max. scale	Count	Duplicate count	
<ul> <li>abels</li> <li>image: Fields</li> <li>✓ Rendering</li> <li>Oisplay</li> </ul>	image: picks cla       image: picks cla	jenks_classification = 1 jenks_classification = 2 jenks_classification = 3 jenks_classification = 4 jenks_classification = 5					
<ul> <li>Actions</li> <li>Joins</li> <li>Diagrams</li> </ul>	Refine selected rules     Layer rendering	Σ					Symbol levels
<ul> <li>Motadata</li> <li>Variables</li> <li>Legend</li> </ul>	Layer transparency Layer blending mode	Normal	<b>.</b>				0 (;
	Control feature render						* \$
	Help Style	Apply				Can	OK

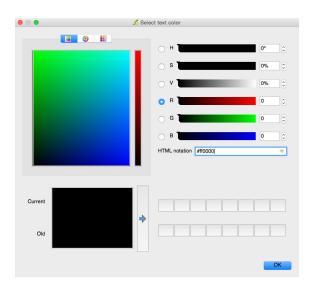
We can now see the colors for all of our rules. Next, we're going to add labels to this layer.

• •		🔏 Layer P	roperties - point_list_jenks   Labels		
🔀 General	No labels				<u>م</u>
Style	Label with				¥ E
(abc Labels		nple			
Fields	Lorem Ipsum				0
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S Actions		1	0		
┥ Joins	abc Text	Text Font	Helvetica	0	e,
🛐 Diagrams	abo Buffer	Style			
i Metadata	Background Shadow	Style	U E, 8 E,	о В 🚭 I	
Variables	Rendering	Size	13.0000	0	e,
Legend			Points	٥	e,
		Color			e,
		Transparency	0	0%	e,
		Type case	No change	٥	e,
	Help Style	Apply		Cancel	OK

We're going to show labels for this layer. Select that from the dropdown menu at the top.

General	Gen Show labels for	r this layer		📄 🗋 🗞
Style Labels	Label with ▼ Text/Bu abc gis Lorem Ipst 123 gid ptd Lorem Ipst 123 gid	join ce_name		¥.
Rendering				
Display	Lorem Ipsum		6 -0	
Actions	···· Text	Text		
Diagrams	<ul> <li>*** Formatting</li> <li>*** Buffer</li> <li>*** Background</li> </ul>	Font	Helvetica	
Metadata	Shadow Placement		u e, s e,	₿ €,   €,
Variables Legend	/ Rendering	Size	13.0000 Points	
		Color		e,
		Transparency	0	0% 0%
		Type case	No change	o (E,

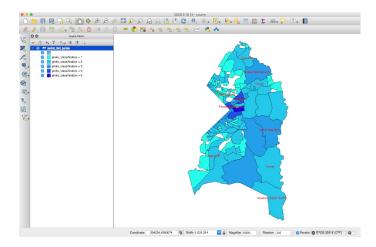
The Label with dropdown will appear. Select place\_name as the field where the label text will come from.



Click on the Color bar for these labels. In HTML notation, enter #ff0000 . Then click OK.

• •		🌠 Layer Pr	operties - point_list_jenks   Labels		
🤆 General	📾 Show labels for this layer				
	Label with abc plac	e_name		3	
(abc Labels	▼ Text/Buffer sam	nple			
Fields	Lorem Ipsum			0	
🞸 Rendering					
🧭 Display	Lorem Ipsum		•		
S Actions	🚥 Toxt	Text			
• Joins	<sup>+ab</sup> <sub>&lt; c</sub> Formatting	Font	Helvetica	0 🖶	
Diagrams	abc Buffer Background	Style		○ €,	
🧑 Metadata	Shadow		U (=, 8 (=,	B €, I €,	
S Variables	/ Rendering	Size	13.0000	0 🖷	
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		Color	<b></b>	e,	
		Transparency	0	0 % C 🗐	
		Type case	No change	:	
	Help Style	Apply		Cancel OK	

This will set the color to a bright red. Click OK.



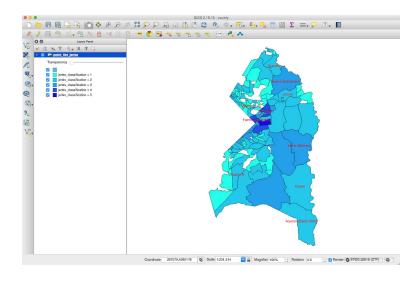
After a short delay, the layer will appear with colors and labels. We're going to add a transparency slider now.

e eneral	Embedded widgets in legend	s - point_list_jenks   Legend	
ኛ Style	Available widgets	Used widgets	
abs Labels	Transparency slider		
Fields			
of Rendering			
🤎 Display			
Actions			
Joins			
Diagrams	0		
🕢 Metadata			
S Variables			
E Legend			
	Help Style Apply		Cancel

Click on Transparency slider, then click on the right arrow in the middle of the window.

mbedded widgets in legend		
Available widgets	Used widgets	
Transparency slider	Transparency slider	
elp Style Apply		Cancel OK
	Available widgets Transparency slider	Available widgets       Transparency silder     Transparency silder

Click OK.



The layer will now reappear.