**Conversational GEE API JavaScript**  1

Basics Geospatial Software Design

// This is just a comment

/\* And this is a comment

on more than one line \*/

alert( "This appears in \n a message box" );

alert( “Yet this fails because of the wrong kind of double-quotes” );

alert( "This works even without ending statements with semi-colons," )

alert( "though the statements are marked ‘i’ meaning incomplete" )

alert( "This will also appear in a message box but, as you can see, it’s too long \

to fit on a single line of input" );

alert( "But without that backslash,

multiple-line input isn’t allowed" );

alert( "Unless the line break" +

"occurs between tokens" );

print( "This appears in the Console tab" );

// USING VARIABLES (whose names must almost always begin with with letters)   
**var** somethingToBePrinted = "This is what gets printed";  
print(somethingToBePrinted);

**Conversational GEE API JavaScript**  2

SingleBand Images Geospatial Software Design

// DISPLAYING A SINGLEBAND IMAGE  
**var** imageToBeDisplayed = ee.Image( "CGIAR/SRTM90\_V4" );  
Map.addLayer( imageToBeDisplayed );

// DISPLAYING A SINGLEBAND IMAGE WITH ZOOM/PAN CONTROL  
**var** imageToBeDisplayed = ee.Image( "CGIAR/SRTM90\_V4" );  
Map.addLayer( imageToBeDisplayed );  
Map.setCenter( -74.0588, 40.7389, 7);

// DISPLAYING A SINGLEBAND IMAGE WITH MIN/MAX COLOR CONTROL  
**var** imageToBeDisplayed = ee.Image( "CGIAR/SRTM90\_V4" );  
Map.addLayer( imageToBeDisplayed,{ min:"0",max:"300" } );  
Map.setCenter( -74.0588, 40.7389, 7);

// DISPLAYING A SINGLEBAND IMAGE WITH OPACITY CONTROL  
var imageToBeDisplayed = ee.Image( "CGIAR/SRTM90\_V4" );  
Map.addLayer( imageToBeDisplayed,{ min:"0",max:"300", opacity:0.7 } );  
Map.setCenter( -74.0588, 40.7389, 7);

// DISPLAYING A SINGLEBAND IMAGE WITH PALETTE CONTROL  
**var** imageToBeDisplayed = ee.Image( "CGIAR/SRTM90\_V4" );

**var** myColors = "00AA00,0000FF,550000";  
Map.addLayer(imageToBeDisplayed,{min:"0",max:"300", opacity:0.7,palette: myColors});   
Map.setCenter( -74.0588, 40.7389, 7);

**Conversational GEE API JavaScript**  3

MultiBand Images Geospatial Software Design

// DISPLAYING A MULTIBAND IMAGE

**var** imageOfManyBands = ee.Image( 'LC8\_L1T/LC80140332013216LGN00' );  
**var** imageOfThreeBands = imageOfManyBands.select( 2,1,0 );  
Map.addLayer( imageOfThreeBands );  
Map.centerObject(imageOfManyBands, 7 );

// DISPLAYING A MULTIBAND IMAGE WITH GAIN AND BIAS ADJUSTMENT

**var** imageOfManyBands = ee.Image('LC8\_L1T/LC80140332013216LGN00' );  
**var** imageOfThreeBands = imageOfManyBands.select ( 2,1,0 );  
Map.addLayer(imageOfThreeBands,{bands:['B3','B2','B1'],gain:0.015,bias: "0,20,0"});  
Map.centerObject(imageOfManyBands, 7 );

// FILTERING A MULTIBAND IMAGE COLLECTION  
**var** allQuilts = ee.ImageCollection( 'LC8\_L1T' );

**var** someQuilts = allQuilts.filterDate

( new Date( "2013-01-01" ), new Date( "2013-12-31" ) );

**var** oneQuilt = someQuilts.median();

**var** threePlies = oneQuilt.select( "B3", "B2", "B1" );

Map.addLayer( threePlies, { gain: "0.008 ,0.01, 0.006"} );

Map.setCenter( -122.418, 37.72, 11 );

// SUBTRACTING ONE IMAGE FROM ANOTHER  
**var** allQuilts = **ee.ImageCollection**( "LANDSAT/L5\_L1T\_32DAY\_NDVI" );

**var** olderQuilt = allQuilts.filterDate

( **new** Date("2000-01-01"), **new** Date("2000-12-31")).median ();

**var** newerQuilt = allQuilts.filterDate

( **new** Date("2010-01-01"), **new** Date("2010-12-31")).median ();

**var** changeQuilt = newerQuilt.subtract (olderQuilt);  
Map.addLayer( changeQuilt.select ( "NDVI" ) ,{min:"-0.5", max:"0.5", opacity: 0.5,

palette: "FF0000,000000,00FF00"} );  
Map.setCenter( -122.42, 37.71, 14 );

**Conversational GEE API JavaScript**  4

Features Geospatial Software Design

// FILTERING A FEATURE COLLECTION  
**var** allStates = **ee.FeatureCollection**( "ft:1fRY18cjsHzDgGiJiS2nnpUU3v9JPDc2HNaR7Xk8" );  
**var** californiFilter = ee.Filter.eq( "Name", "California" );  
**var** justCalifornia = allStates.filter( californiFilter );  
Map.addLayer( justCalifornia , { color:"FF0000" } );  
Map.setCenter( -122.418, 37.72, 5 );

// CLIPPING AN IMAGE COLLECTION WITH A FEATURE COLLECTION  
**var** allQuilts = ee.ImageCollection( "LANDSAT/LE7" );  
**var** oneQuilt = allQuilts.filterDate

( **new** Date("2000-01-01"), **new** Date("2000-3-31") ).median();

**var** allStates = **ee.FeatureCollection**( "ft:1fRY18cjsHzDgGiJiS2nnpUU3v9JPDc2HNaR7Xk8" );

**var** californiFilter = ee.Filter.eq( "Name", "California" );  
**var** justCalifornia = allStates.filter( californiFilter );  
**var** californiQuilt = oneQuilt.clip( justCalifornia.geometry() );  
**var** threePlies = californiQuilt.select( "B3", "B2", "B1" );  
Map.addLayer( threePlies, { gain: "0.6, 0.5, 0.4" } );  
Map.setCenter( -122.418, 37.72, 5 );