TETRA

MOBILE APPLICATION

ARCHITECTURE DESIGN

Prepared by:

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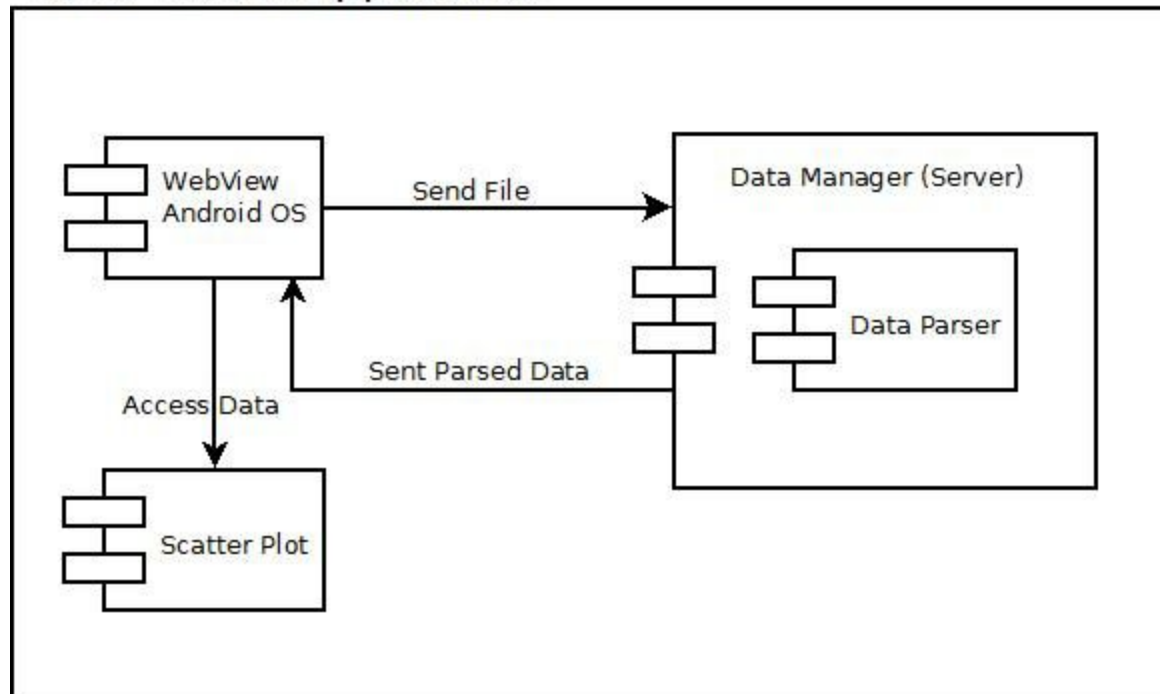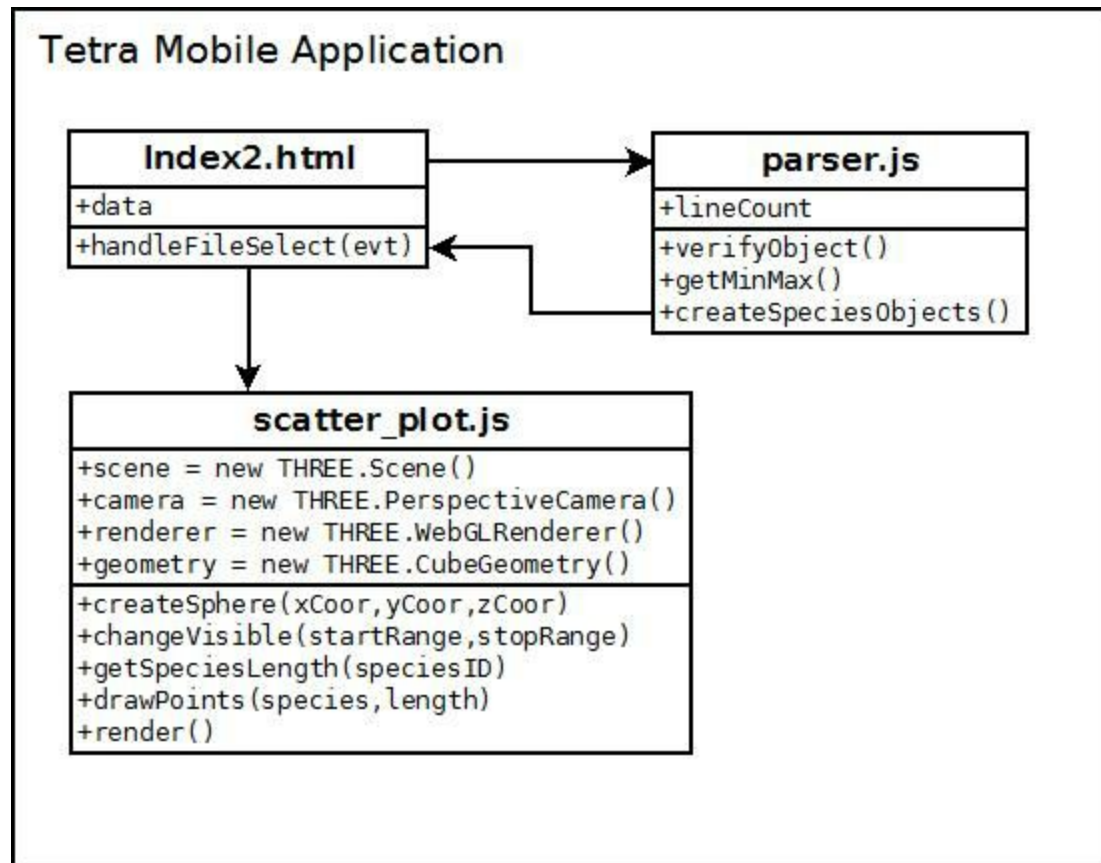ADRIAN OSUNA *(Assistant Project Manager)*   Dr. ARTURO I. CONCEPCION
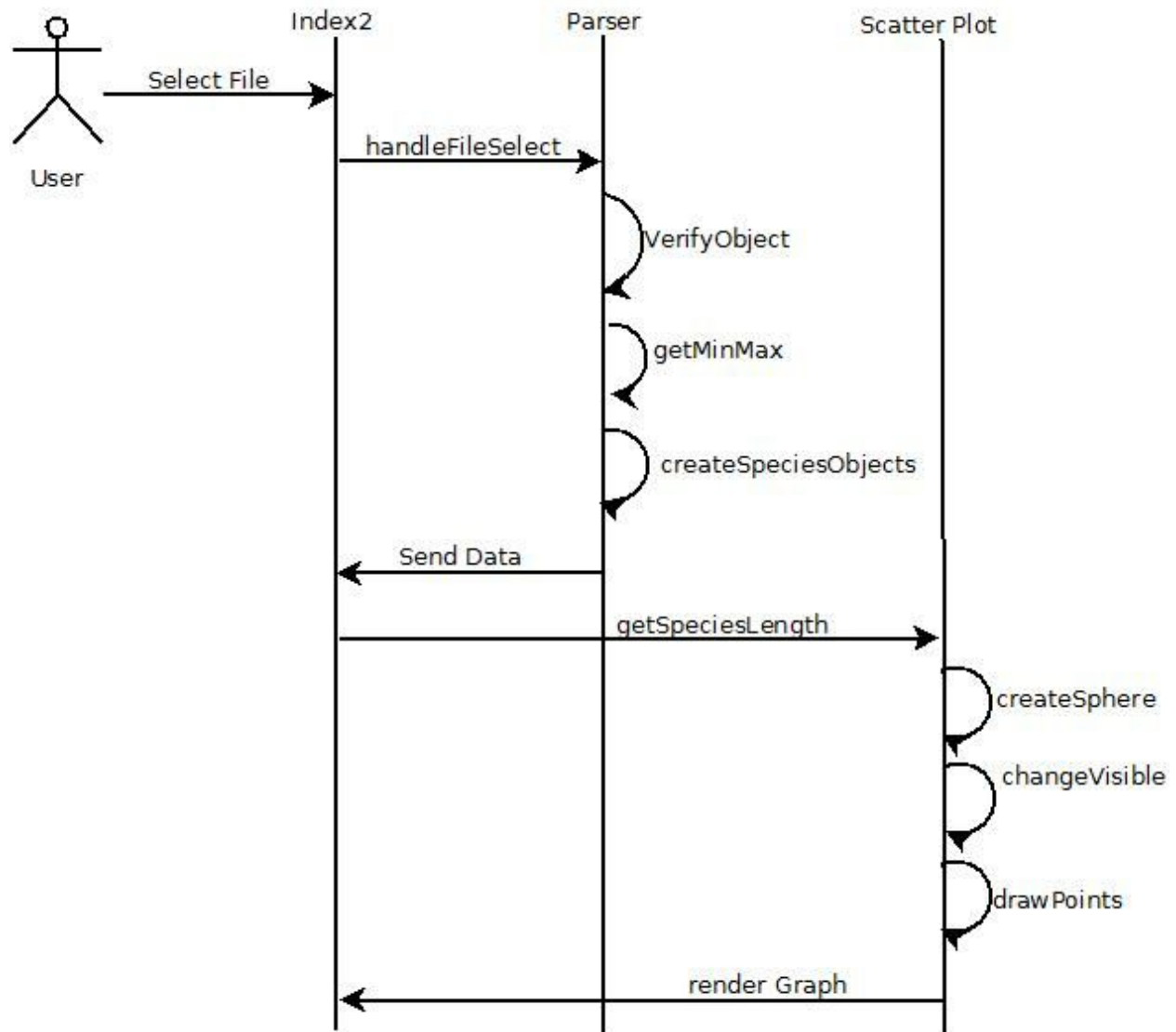
COMPONENT DIAGRAM

Tetra Mobile Application

CLASS DIAGRAM

Tetra Mobile Application

Index2.html
+data

+handleFileSelect(evt)

parser.js
+lineCount

+verifyObject()
+getMinMax()
+createSpeciesObjects()

scatter_plot.js
+scene = new THREE.Scene()
+camera = new THREE.PerspectiveCamera()
+renderer = new THREE.WebGLRenderer()
+geometry = new THREE.CubeGeometry()

+createSphere(xCoor,yCoor,zCoor)
+changeVisible(startRange,stopRange)
+getSpeciesLength(speciesID)
+drawPoints(species,length)
+render()

SEQUENCE DIAGRAM

As you can tell, the overall architecture of this webapp is simple. The user opens the app and is presented with the index.html file. This file is the main and only view. From there, the user must select a file to graph, this is handled client side and the file is never sent to the server, so we do not need to take security into effect as everything is handled locally. The file is parsed into Javascript objects, and then immediately sent to the graph. The graph renders a new frame every 60 seconds, or less depending on CPU load. Updating visibility or rotation of camera occurs on the next call to render().