**PROJECT 2 PROPOSAL**

Project Name: **Global Satellite Launch from 1970 – 2020**

Team Members: **Ekin Kaplan, O.J. Ndebbio, Henry Le**

**SECTION A - WORKFLOW PROPOSAL:**

**SECTION B - DATA EXPLORATION:**

1. **REQUIRED**
2. Overview of 40+ years of satellite launches?
   1. X :: years / decades
   2. Y :: counts
3. Plot satellite launch by countries : who has the most satellites (owner column)
   1. X :: country names – radial stacked bar chart
   2. Y :: counts
4. Leaflet:
   1. Comparing 1970 – 2020 : slider over the map
   2. Choropleth maps (in total) : use the data from #2
5. Build demographic box for each satellite name:
   1. Country of origin, year launch, Mass, Power
   2. Longitude of GEO (degrees), Perigee (km), Apogee (km), Eccentricity, Inclination (degrees), Period (minutes) : this is the time to complete one rotation, Launch Mass (kg.)
6. **OPTIONAL**
7. Plot satellite counts vs. purpose (technology, communication), etc.:
   1. X :: purpose of usage
   2. Y :: the counts
8. Plot satellite counts vs. users (civil, commercial, military), etc.:
   1. X :: purpose of usage
   2. Y :: the counts
9. Contractor vs. count:
   1. X :: contractor
   2. Y :: counts
10. Launch site vs. count:
    1. X :: launch site
    2. Y :: counts
11. Data query table with multiple filters. Filters:
    1. Country
    2. Users
    3. Purpose
    4. Date Launch
    5. Contractor

**SECTION C – TEAM TASKS:**

1. **Data Clean-up** (E. Kaplan, by 12:00PM Jun.3, 2020)
2. Rename the columns: make it more concise, replace “space” with \_
3. Replace missing data with “Zero” (number) or “Not Available” (string)
4. Delete all “Source” columns
5. **Writing the Flask Cap, creating two routes**
   1. Rendering the HTML (O.J., by Jun. 4, 2020)
   2. Create the API Route for data (H. Le, by Jun. 4, 2020)
      1. Load SQLite DB
      2. Convert it to JSON format
6. **Build baseline HTML/ CSS** (E. Kaplan, O.J.)
7. **Build JavaScript** (All)
   1. Build drop down box with Satellite names (E. Kaplan)
   2. Filter data based on Satellite Names (H. Le)
   3. Build Demographic Info (O.J.?)
   4. Plots all data exploration (All)
8. **Readme.MD** (E. Kaplan, H. Le)