Team Hornets – 5/18/24

Haris Khan, Kamrul Hassan, Nicholas Logozzo, and Tae Young Kim

Use Case Number	Use Case Name (1-sentence description of the use case)	Master Use Case Number
1	Select state to display (required)	GUI-1
2	Display the current display plan when state is selected (required)	GUI-2
3	State data summary (required)	GUI-3
4	Display district plan (required)	GUI-8
5	Integrate multiple data sources (required)	Prepro-1
6	Integrate enacted plan with dataset (required)	Prepro-3
7	Store preprocessed data (required)	Prepro-4
8	Calculate statewide measures (required)	Prepro-6
9	Display racial/ethnic distribution of current Assembly (required)	GUI-9
10	Display state assembly table (required)	GUI-6
11	Determine the racial/ethnic distribution of the state Assembly (required)	Prepro-8
12	Determine racial distribution of the State Assembly algorithmically (optional)	Prepro-14
13	Display photo of district representative (preferred)	GUI-7
14	Filter representative data (optional)	GUI-25
15	Display a bar char of opportunity districts in the ensemble (required)	GUI-14
16	Identify precinct neighbors (required)	Prepro-2

17	Generate data files required for SeaWulf processing (required)	Prepro-7
18	Server dispatcher (required)	SeaWulf-1
19	Run MGGG ReCom algorithm on the SeaWulf (required)	SeaWulf-2
20	Coordinate/aggregate SeaWulf core generated data (required)	SeaWulf-3
21	Identify opportunity districts in each random district plan (required)	SeaWulf-10
22	Calculate ensemble measures (required)	SeaWulf-7
23	Calculate election winners (required)	SeaWulf-4
24	Calculate the Republican/Democratic split for each random district (required)	SeaWulf-5
25	Store SeaWulf data (required)	Prepro-5
26	Display demographic heat map by precinct or district (required)	GUI-4
27	Display demographic heat map by census block or precinct (preferred)	GUI-5
28	Display box & whisker data (required)	GUI-23
29	Calculate box & whisker data (required)	SeaWulf-12
30	Display Gingles 2/3 analysis results (required)	GUI-15
31	Gingles 2/3 precinct analysis (required)	Prepro-10
32	Gingles 2/3 non-linear regression analysis (required)	Prepro-11
33	Display the Gingles 2/3 analysis data in a tabular display (preferred)	GUI-17
34	Highlight a Gingles 2/3 table row (preferred)	GUI-18

35	Reset page (preferred)	GUI-12
36	Display candidate results of Ecological Inference (EI) analysis (required)	GUI-19
37	Use the PyEI MGGG software to calculate Ecological Inference data (required)	Prepro-12
38	Compare two district plans on the map (preferred)	GUI-13
39	Identify and store additional random district plans of note (required)	SeaWulf-6
40	Identify “interesting” random district plans (preferred)	SeaWulf-11
41	Python profiler (preferred)	SeaWulf-9