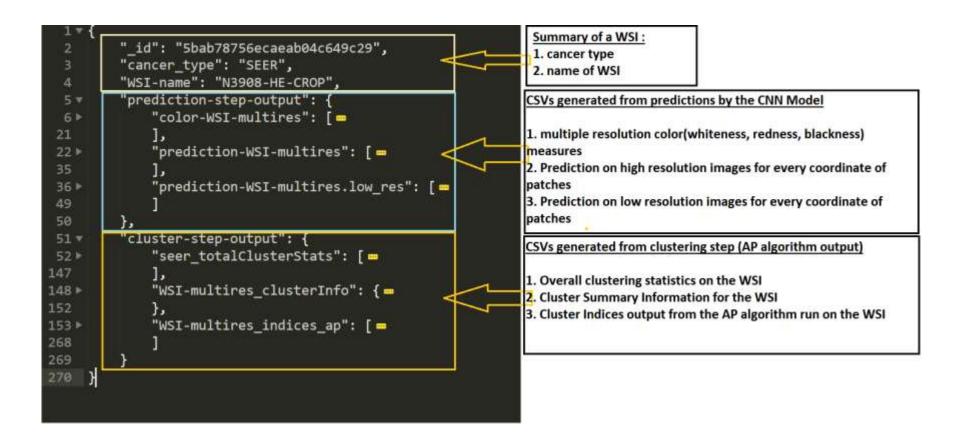
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Overall SEER JSON Structure

The complete JSON file is available here in Github. **SEER.json**



Prediction Output Structure Explained

Color -WSI-MultiRes explained

```
"prediction-step-output":
   "color-WSI-multires": [
                                                               For every x and y coordinate of the patches, what is
                                                               the color density information based on the
              "coor_x": 1,
                                                               predictions produced by the CNN model.
              "coor_y": 1,
                                                               This will be useful to generate the PNG images
              "whiteness": 0,
              "blackness": 0,
                                                               Note: Only 2 data points have been shown for
              "redness": 0
                                                               illustration purposes. Obviously in actual data all
                                                               coordinates of the image will be available.
              "coor_x": 1,
              "coor_y": 2,
              "whiteness": 0,
              "blackness": 0,
              "redness": 0
```

Prediction -WSI-MultiRes explained

For each coordinate of x and y in the patch, this section captures the following

bin_value: TIL/No-TIL(1/0)

real_value: Actual Probability predicted value

Prediction -WSI-MultiRes for low resolution images explained

```
"prediction-step-output": {
    "color-WSI-multires": [ --
    "prediction-WSI-multires": [ =
    "prediction-WSI-multires.low res": [
                                                     information:
            "patch_index_x": 392,
            "patch_index_y": 392,
                                                     1. bin_value: Til/No Til (1/0)
            "bin value": 0,
                                                     2. real_value: Actual Probability value
            "real_value": 0.004871
            "patch_index_x": 392,
            "patch_index_y": 1176,
            "bin value": 0,
            "real_value": 0.005726
```

For low resolution images in each coordinate of x and y, this section conveys the following

Cluster Output Structure Explained

Overall cluster statistics output

```
"cluster-step-output":
   "seer totalClusterStats"
           "Slides": "N3908-HE-CROP-multires.csv",
           "number of data points": 363,
           "number of clusters": 4,
           "Ball Hall": 727.033492228104,
           "Banfeld Raftery": 2335.98088004097,
           "C index": 0.0335152159541665,
           "Calinski Harabasz": 968.214411749257,
           "Davies Bouldin": 0.430478646107358,
           "Det Ratio": 59.3988774907265,
           "Dunn": 0.052702797742987,
           "Gamma": 0.917867183685303,
           "G plus": 0.0164737177128835,
           "GDI11": 0.052702797742987,
           "GDI12": 0.339330435992321,
           "GDI13": 0.108306441285547,
           "GDI21": 1.28806866834899,
```

This is the first section of the clustering output.

This section represents the overall cluster statistics for each WSI. Some of the fields have been listed, the actual JSON has all the fields available as part of this statistics.

Overall cluster summary information

Cluster Indices output (AP algorithm)

```
"cluster-step-output": {
 51 v
52 ≯
             "seer_totalClusterStats": [ -
147
             "WSI-multires_clusterInfo": { -
148 ▶
152
             "WSI-multires indices ap":
153 v
154 v
                      "Slides": "TCGA-05-4396-01Z-00-DX1",
155
                      "Ball Hall": "NA",
156
                      "Banfeld Raftery": "NA",
                      "C index": "NA",
158
                      "Calinski_Harabasz": "NA",
159
                      "Davies Bouldin": "NA",
                      "Det_Ratio": "NA",
                      "Dunn": "NA",
162
                      "Gamma": "NA",
                      "G plus": "NA",
                      "GDI11": "NA",
                      "GDI12": "NA",
                      "GDI13": "NA",
                      "GDI21": "NA",
168
                      "GDI22": "NA",
169
170
                      "GDI23": "NA",
                      "GDI31": "NA",
171
                      "GDI32": "NA",
172
                      "GDI33": "NA",
173
                      "GDI41": "NA",
174
                      "GDT42": "NA"
```

This section captures the output as part of the clustering indexing step by the AP algorithm:

It is an array of data elements (a subset has been shown for illustration purposes).