**Total Report Score: 5 points**

**Instructions**

1. Read the report and deduct any of the penalties below. Deduct up to the total points of each section.
2. Upload your comments and grades to CMS.

**Score Distribution**

Deliverables (0.2 pts)

Programming (1.5 pts)

Report (3.3 pts)

**Penalties**

**Deliverables**

* Wrong format (-0.1 pts)
* Did not *make clean* (-0.1 pts)

**Programming**

* Cannot compile or run (-1 pts)
* Bad coding quality (-0.1 pts)
* Use pragmas other than *unrolling* and *array partitioning* to optimize the design (-0.2 pts)
* Unroll the outermost loop (-0.5 pts)
* Partition factor for *training\_data* larger than 10 (-0.2 pts)

**Report**

* Wrong format (-0.2 pts)
* More than 2 pages (-0.4 pts)
* Lack of overview (-0.2 pts)
* Description on function implementations
  + Lack of *update\_knn* (-0.1 pts)
  + Lack of *knn\_vote* (-0.1 pts)
* Comparison on different k (up to 1.3 pts)
  + Lack of table with entrances: error rate, BRAM, DSP48, LUT, FF, latency (-0.1 for each entrance)
  + Lack of comparison (-0.2 pts)
  + Optimized design does not reach 10X smaller latency (-0.4 pts)
  + Error rate higher than 10% for 1-NN (-0.5 pts)
  + Error rate higher than 10% for all k-NN (k > 1) (-0.5 pts)
    - It is OK if the error rates for some k-NN are higher than 10%
  + Explore k larger than 5 (-0.1 pts)
* Description on design optimization (up to 0.4 pts)
  + Lack of comparison on optimized/baseline designs (-0.2 pts)
    - Lack of performance comparison (-0.1 pts)
    - Lack of area comparison (-0.1 pts)
  + Lack of summary (0.2 pts)
* Quality of report (0.4 pts)
  + Lack of captions on tables/figures (0.1 pts)
  + Poor English (0.2 pts)
  + Bad quality of figures (0.1 pts)