Mean Filter on N-dimensional Tensor

1. Given an N dimensional tensor, compute a new tensor where each value is the mean value of its neighbors (including itself) in the input tensor.
2. The neighbor set includes every value that is 1 index away in all dimensions.
3. Provide the implementation in C++. See the interface of the required function below.

```
inputTensor: Input tensor
dimensions: Vector of extents in each dimension

float* meanFilteredTensor(const float* inputTensor, const
vector<unsigned int>& dimensions) {
      ...
      ...
}
```

What are we looking for?

1. We value a complete solution both from correctness as well as handling of corner cases.
2. We want to evaluate your understanding of good software engineering practices. Please use your best judgement in that context when developing this code.