

How each vector was generated:

`srand((unsigned int)time(nullptr))` was used to ensure that different values would be generated each time an executable was ran, and `std::rand()` to generate the values. The same code is used to generate the values in each executable, with the exception being `bucketSort`, where `floats` are generated instead of `ints`. After filling the first vector of the first testing size in the `main` function, refilling the following vectors with random `ints` was done using the same code, but with a call to the function `refill(std::vector<int> &v, int size)`, where the vector and the size of the vector are passed in for filling.

Here is the code in `main`:

```
srand((unsigned int)time(nullptr));

// fill vector here
for (int i = 0; i < size; ++i)
{
    int val = (std::rand() % 20000);
    V.push_back(val);
}
```

The code in the `refill` function:

```
// to refill vectors to the next testing size
void refill(std::vector<int> &v, int size)
{
    for (int i = 0; i < size; ++i)
    {
        int val = (std::rand() % 20000);
        v.push_back(val);
    }
}
```

The plots are on the following pages.













