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**Semester Project:**

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**Section:** CS-D

**Course:** Data Structure

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In key.h header file ACCURACY is being used for SHA comparison. So, we can check which key is greater or smaller. This is 8 bytes comparison, which is good enough to not have any collision. We are using this because the collision chance is 50% after 5 billion trial. we can change it anytime to change Proximity.

Then in this file we have made functions for conversion from hexa decimal to binary and conversion from binary to integer. Then it contains a class named key. Class key has two data members key and keyLength.There the received key is being hashed. For hashing we are using only first eight characters of string for comparison. The advantage of using first 8 characters for comparison is that we can avoid the collision. In this case we will have very low chances of collision that is after five billion trials. Then there is simple operator overloading in this class.

