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**ABSTRACT**

Lock and Key is an interactive 3D game demonstrating the different types of transforms once can perform for construction of 3D models and animations inside OpenGL. Lock and Key consists of two types of locks, a padlock and a pattern lock. The padlock consists of 3D models of a lock and multiple keys and animations of locking and unlocking. The application user can rotate the entire model using key functions. To unlock the lock, the user must first find the correct location and rotation of the correct key and set it accordingly. The pattern lock consists of three cylinders, each with six patterns. Upon selecting the right pattern through the cylinders, the pattern lock is unlocked.

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