In this project, a two-stage CMOS operational amplifier is designed using the SkyWater 130nm PDK. The proposed two-stage op-amp consists of NMOS current mirror as a bias circuit, a differential amplifier as the first stage, and a common source amplifier as the second stage. The first stage of an op-amp contributed high gain while the second stage contributes a moderate gain. The results show that the circuit can work at 1.8V power supply voltage, provides a gain of greater than 60 dB, and the phase margin of the op-amp is nearly 60 degrees for a load of 2pF capacitor. Therefore, the power dissipation and the consistency of this operational amplifier are better than the previously reported operational amplifier.