Buying a pre-built computer is a nightmare. Wading through technical sheets and reviews just to find a computer that you are inevitably going to overpay for. One example is my personal pc, which would have cost around 2500 dollars from a pc building company. By assembling it myself, I saved over 1000 dollars. Similarly, a 500-dollar office pc from best buy can be built for 300 dollars. Building a pc is both a great experience and a money-saver. In addition to being cheaper than buying a pre-built, computer component manufacturers have been making connectivity improvements over the past 30 years that makes building a pc about as easy as putting together a Lego set. However, if you plan on building a computer, you must first plan it out.

The first step is to decide what you want the pc for and create a budget. To simplify this process, I will split the computer market into three sections: office, gaming, and enthusiast. If you want a cheap computer that can process word documents smoothly, you likely want to build an office pc and should put aside anywhere between 3 to 6 hundred dollars. Next, if you plan on doing some light gaming or photo and video editing, you likely want a gaming computer. These will cost from 7 to 12 hundred dollars. The final group of computers are enthusiast computers, which will be anything over 12 hundred dollars.

Before you start planning your build, you need to understand what each piece of a computer does. A computer is made up of many components, which are all placed on a motherboard. The motherboard connects all these chips and allows them to communicate with each other. All computers have a CPU (Central Processing Unit), which manages most of the processing done in the computer. There is also RAM (Random Access Memory), which is essentially high-speed storage that the CPU uses to temporarily store information for the tasks it is completing. A GPU (Graphics Processing Unit), for processing the graphical output, which is what you see on your monitor. This is technically optional, but I will explain that later. Next is storage, which stores all data you keep on your computer, including documents, pictures, and even windows, your operating system. Next is your PSU (Power Supply Unit), which delivers power to the rest of the computer. All of this is enclosed in a case and cooled by fans. You want to make sure that your computer is balanced. The computer is only as fast as its slowest part, and you can minimalize bottlenecks by purchasing components released around the same time and to similar audiences. Now that you know your budget and what all the parts of a computer are, you can start deciding what parts you want to put in your computer.

The first component to choose is your CPU. This part will