**ISDS 551**

**GREEN COMPUTING RESEARCH PROJECT**

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**PART 1: PROJECT INTEGRATION MANAGEMENT**

**TASK 1.1: GREEN COMPUTING DESCRIPTION**

**WHAT IS GREEN COMPUTING**

Using the computers and their resources wisely in an eco-friendly and environmentally responsible manner is known as Green Computing. The development of environmentally sustainable production practices, energy-efficient computers, and improved disposal and recycling procedures are few of the green practices implemented by Information Technology.

**NEED OF GREEN COMPUTING**

According to a research, in an average year, 24 million computers become obsolete in the United States. Only about 14% (3.3 million) of these get recycled or donated. The remaining are destroyed or shipped as waste products or to be dealt with later in the temporary storage. We even do not care about how our laptop gets disposed of when it dies. Moreover, the electricity being generated from our computers emit harmful gases which can cause respiratory disease, smog, acid rain, and global climate change.

Therefore, it is high time that we realize to do our part to protect the environment. Here comes the need of green computing which is an important idea to keep our environment clean and safe.

For instance, we can avoid the impact of harmful gases emitted form switched on computers if we save the electricity and do not leave computers on continuously because most of the world's electricity is generated by burning fossil fuel pollutants such as sulphur, mercury, and carbon dioxide.

**GREEN COMPUTING FOR A SAFE COMPUTER WORLD**

IT firms play a major role in deploying Green Computing strategies to keep the environment safe and clean. Hence, it is important to learn about the implementations by the IT giants and their contribution towards an eco-friendly computing world.

* **Various approaches for promoting Green Computing at all levels of an organization**

In addition to adopting energy efficient methods and proper disposal of electronic waste, measures such as telecommuting, virtualization of server resources, use of open source software and thin client solutions- all contribute towards increasing IT sustainability. Development of software that addresses green computing for internal use in organizations and encouraging its sale to other organizations can be a useful contributor to our cause.

To promote green computing concepts at all possible levels, the following four approaches are employed:

* **Green use:** Minimizing the electricity consumption of computers and their peripheral devices and using them in an eco-friendly manner.
* **Green disposal:** Repurposing existing equipment or appropriately disposing of, or recycling, unwanted electronic equipment.
* **Green design:** Designing energy-efficient computers, servers, printers, projectors and other digital devices.
* **Green manufacturing:** Minimizing waste during the manufacturing of computers and other subsystems to reduce the environmental impact of these activities.
* **Green Computing projects and technologies by giant IT organizations**

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