**Compare the types of secondary storage media  
with respect to portability, speed and capacity**

**Secondary storage** **media**. There are several types of secondary storage media, some are seldom used while others used daily. Let us compare these media in terms of portability, speed and capacity. Here are discussions on some Secondary Storage Devices:

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| **Storage Media** | **Portability** | **Speed** | **Capacity** |
| **Magnetic Tape**   * Comprises a thin tape with a coating of a fine magnetic material * Cheaper and are more durable | The tape itself is thin or narrow and is portable.  However, the tape needs to be inserted in a tape drive for the data to be read | Slowest of all storage media,  so ideal for backing up old data (archiving) | Can store up to about 5 Terabytes |
| **Floppy Disk**  Were popular in the 1980's and early 2000's | The disk itself is small enough to be portable.  However, the disk needs to be inserted in a disk drive for the data to be read   Floppy disks sizes were 5.5-inches, and 8-inches, but the popular size was 3.5-inches. | Very slow to access and store data | Between 640kb and 1.44 Mb |
| **Hard Disk**  A Hard Disk is normally mounted inside a case.  Usually there are multiple hard disks stored in a hard disk drive. | Hard disks that are used internally in a computer system are not portable.  However, there are now some external hard drives | Very fast compared to the floppy and magnetic disk | Range from hundreds of megabytes to hundreds of gigabytes or terabytes |
| **Optical Disks**  Flat, circular, plastic or glass disk on which data is stored in the form of light and dark pits.  Types:  **Compact Disk (CD):**  CD-ROM: CD-Read Only Memory - data cannot be erased from it  CD-RW: CD-Rewritable, these disks can be erased and rewritten at any time.  **Digital Versatile Disk (DVD):**  DVD-ROM:DVD-Read Only Memory - data cannot be erased from it  DVD-RW: DVD-Rewritable, these disks can be erased and rewritten at any time. | Portable | Faster than magnetic tape, but slower than hard disk or flash memory       CD: Can transfer data up to the speed of 7800 KB/s, or about 70 minutes of audio.  DVD: access rates of 600 KBps to 1.3 MBps | CD: About 650 MB        DVD: Ranges from 4.7 GB to 17 GB |
| **Flash Drive**  small external storage device, typically the size of a finger; inexpensive and durable | Portable | 30 to 100′s  of MB (megabytes per second) | 8 Megabytes to 512 Gigabytes |
| **Flash Memory Card**  An EEPROM non-volatile computer storage chip.  They are flat and also have a smaller version which is used within cell phones | Portable | About 15 MB/s | 1 Gigabytes -16 Gigabytes |

