

NIELIT Gorakhpur

Course Name: O Level (2nd Sem)

Subject: ICT

Topic Backup & Restore

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Backup :- A computer could stop working at any time, and data on a hard drive could become corrupted or lost if the hard drive fails. When hardware or the computer stops working, data on the computer could be lost. Any important files should be backed up to prevent loss of data and ensure we can recover those files if needed.

A backup is a copy of important data that is stored on an alternative location, so it can be recovered if deleted or it becomes corrupted. Depending on how often the data changes, how valuable it is, and how long it takes to back up determines how often to backup.

For example, a company with customer records that change frequently may back up their data every few hours. Even more sensitive data such as bank records may be stored on RAID drives that help protect the data even if a drive fails. The most commonly-used types of data backup are.

- **Full backup**
- **Incremental Backup**
- **Differential Backup**

Full Backup:- The most basic and complete type of backup operation is a full backup. As the name implies, this type of backup makes a copy of all data to another set of media, such as a disk or tape. The primary advantage to performing a full backup during every operation is that a complete copy of all data is available with a single set of media. This results in a minimal time to restore data. However, the disadvantages are that it takes longer to perform a full backup than other types and it requires more storage space. Thus, full backups are typically run only periodically. Data centers that have a small amount of data (or critical applications) may choose to run a full backup daily, or even more often in some cases. Typically, backup operations employ a full backup in combination with either incremental or differential backups.

Incremental Backup:- It refers to backing up all the files that have changed since the last backup operation of any type of backup. For example, you create a full backup on Sunday. Then, the incremental backup performed on Monday only

backs up the changed files since Sunday. And, the incremental backup on Tuesday will back up the changed files since Monday.

Because an incremental backup will only copy data since the last backup of any type, an organization may run it as often as desired, with only the most recent changes stored. The benefit of an incremental backup is that it copies a smaller amount of data than a full. Thus, these operations will complete faster, and require less media to store the backup.

Differential Backup:- Differential backup refers to backing up the only changed files since the last full backup. For instance, a full backup is created on Sunday and a differential backup on Monday will only back up the changed files since Sunday. The differential backup on Tuesday will back up all files that have been changed since Monday and Tuesday. However, each time it is run afterwards, it will continue to copy all data changed since the previous full backup. Thus, it will store more data than an incremental on subsequent operations, although typically far less than a full backup. Moreover, differential backups require more space and time to complete than incremental backups, although less than full backups.

Type/Backup	full	Incremental	Differential
Backup-1	All Data	-----	-----
Backup-2	All Data	Changes from backup1	Changes from backup1
Backup-3	All Data	Changes from backup2	Changes from backup1
Backup-4	All Data	Changes from backup3	Changes from backup1

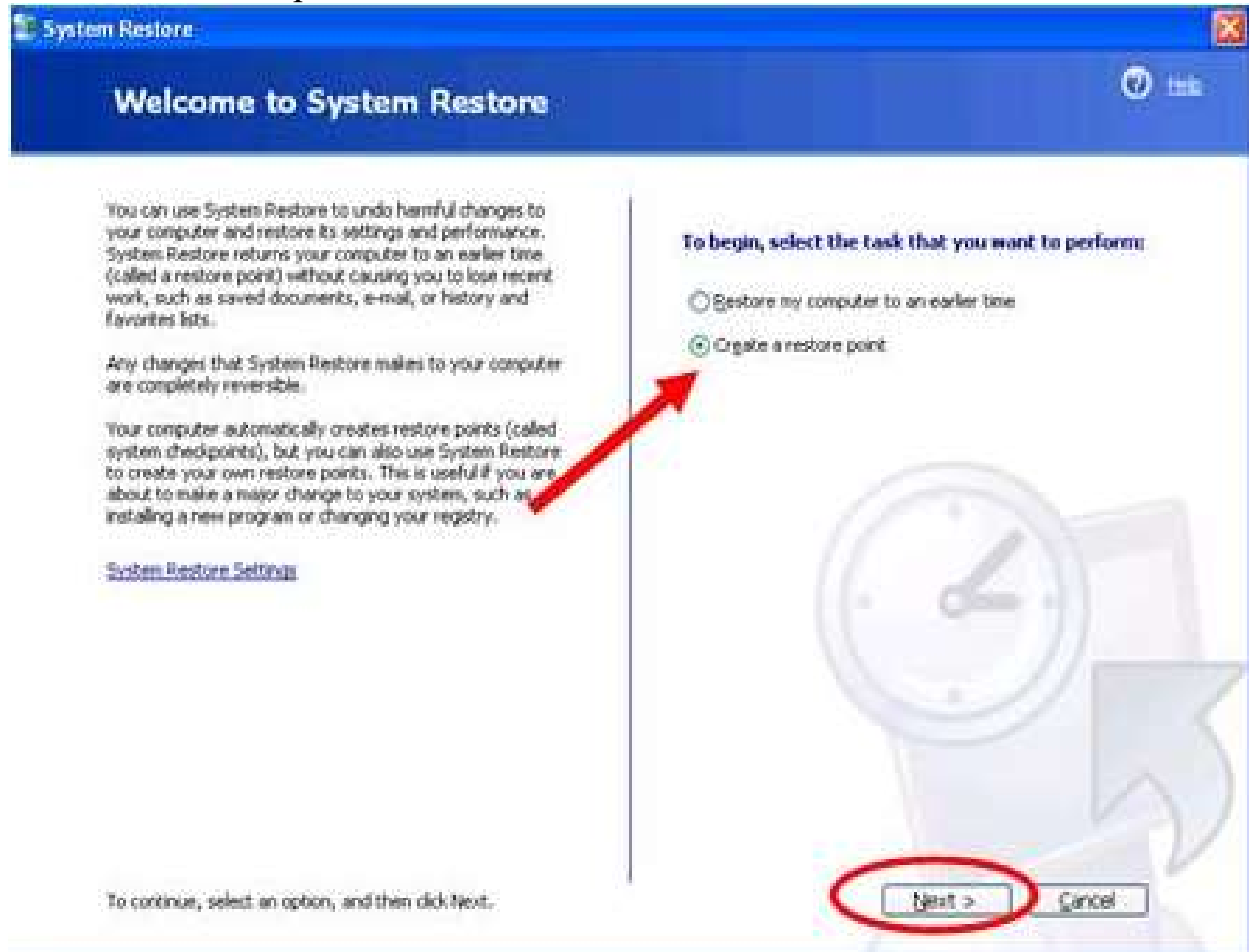
Restore:-The word "restore" means to return something to its former condition. Therefore, when you restore a computer or other electronic device, you return it to a previous state. This may be a previous system backup or the original factory settings.

Since restoring a computer returns it to a previous state, the process also erases any new data that has been added since the previous state. Therefore, you should always back up your data before restoring a computer. The backup should be saved to an external hard drive or another disk other than the one being restored. Once you have restored the computer, you may transfer your files from the backup device back to the computer.

How to create a restore point:-

From the Start button menu, choose All Programs→Accessories→System Tools→System Restore.

- Choose the option Create a Restore Point.



- Click the Next button.
- Type a descriptive name.
- Click the Create button.
- Click the Close button.

How to do a System Restore in Windows XP

- Click Start.
- Click Programs, and then Accessories.
- Click System Tools and open System Restore.
- After processing, a window appears with two buttons at the bottom. Make sure Restore my computer to an earlier time is selected and click Next

- Make your selections and click Next. Then, confirm your restore point and click Finish.

Assignment:-

- 1-How to make a restore point in windows XP?
- 2- Write difference between Backup & restore.