Here is the **most comprehensive, sentence-by-sentence breakdown** of the document titled **"98. Windows Versions Notes.docx"**, turned into **exam-optimized study notes** with full explanations — especially useful for preparing for the **CompTIA A+ 220-1102** exam.

**🧠 1. Concept Overview: Identifying Windows Versions Using Command Line**

In this lesson, you learn how to find out which **version of Windows** you're running using the command line. There are two main tools:

1. **winver** – A command that opens a popup showing the Windows version.
2. **systeminfo** – A command-line tool that gives detailed system specs, including OS version, build, install date, hotfixes, and more.

Knowing the **exact OS version and build number** is essential for troubleshooting, compatibility checks, and system documentation.

**📚 2. Exam Relevance – CompTIA A+ 220-1102**

**✅ Covered Under:**

* **Objective 1.5**: Use Microsoft command-line tools
* **Objective 2.4**: Troubleshoot Windows OS problems

You are expected to:

* Use commands to identify OS version/build
* Recognize when to use winver vs. systeminfo
* Navigate and interpret Windows system info

**✍️ 3. Detailed Study Notes – Sentence-by-Sentence**

**🔸 winver Command**

* To find the Windows version, use the command:
* winver
  + **Spelled**: W-I-N-V-E-R
  + Stands for **Windows Version**

**🔹 Output Behavior**

* In older versions of Windows:
  + winver would return info **inside the command prompt**
* In **Windows 10 & 11**:
  + winver now **opens a popup** window

**🔹 What Information Does winver Show?**

* Example output:
  + Windows 10 Pro
  + Version: **21H1** (First Half of 2021)
  + Build number: **19043.1889**
* This info is displayed in a **dialog box** (graphical window)

**🔹 Understanding Windows Version Format**

* Microsoft numbers Windows versions based on:
  + **Year**
  + **Half of the year**
* Example:
  + **21H1** = 2021, First Half (H1 = January to June)
  + **21H2** = 2021, Second Half (H2 = July to December)

**🔹 Why winver Is Important**

* The command is **called out in the A+ exam objectives**
* Used to quickly identify OS version/build
* **Fast and simple**, but **limited information**

**🔸 systeminfo Command**

* A more detailed command:
* systeminfo
* Gives **extensive system details**, including:
  + OS Name
  + Version
  + Build number
  + Manufacturer
  + Install date
  + Boot time
  + Registered owner
  + Hotfixes
  + Network cards
  + Hyper-V support

**🔹 Using the Pipe for Readability**

* Because the output is **very long**, use the pipe to view it **one screen at a time**:
* systeminfo | more
* The **pipe character (|)** is:
  + Above the Enter key
  + Made by pressing Shift + \

**🔹 Interpreting systeminfo Output**

* First part: OS and build version (same as winver)
* Extra info includes:
  + Product ID
  + Registered Owner
  + System boot time
  + Installed patches/hotfixes
  + Network card list
  + Hyper-V requirements

**🔹 Display Behavior**

* Press **Spacebar** to scroll down page by page
* When finished, returns to the **regular command prompt**

**🔹 Real-World Recommendation**

* While winver is useful for quick checks,
  + systeminfo gives **much deeper insight**
* In real-world IT, professionals **prefer systeminfo** because:
  + It's **richer in detail**
  + Saves time
  + Helps with audits, documentation, and troubleshooting

**💻 4. Real-Life Use Cases**

**🧰 IT Support Diagnosing Compatibility Issues**

* User has software not working correctly.
* Support runs winver and sees it’s version **1909**, which lacks required features.

**👨‍💻 Network Admin Documenting Inventory**

* Runs systeminfo on multiple PCs using scripts.
* Logs OS build, network card, and Hyper-V status for every system.

**🔄 Patch Management**

* Uses systeminfo to:
  + Check **last install date**
  + Review **installed hotfixes**
  + Plan update schedules accordingly

**✅ 5. Exam Inclusion Notification**

✅ **Yes – Fully covered in A+ 220-1102**

**Why:**

* Explicitly called out in the **official exam objectives**
* You may encounter:
  + Command usage scenarios
  + Tool identification questions (e.g., "Which command shows the Windows version?")