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Main Objective of this Paper: This paper helps to achieve new insights from various perspectives. It sheds light even on various aspects of the course and increases our hunger for knowledge. It is wise to say it contributes a lot in respects to the to the holistic development of every student.

Topics Covered and Assignment Provided: We have managed to gain a comprehensive knowledge on this following topic:

1. **What are Environment Variables in UNIX?**
   Environment variables in UNIX are *system-defined* or *user-defined* key–value pairs used to store configuration information. They help the operating system and applications know important settings such as user details, file paths, and system behaviour. These variables are automatically passed to child processes created from a shell session. They reduce the need for hard-coding values inside programs or scripts. Environment variables exist for the duration of the session unless saved permanently. They make system management more organized and flexible. Examples include `PATH`, `HOME`, and `USER`.

2. **Common Environment Variables in UNIX.**
   UNIX provides several standard environment variables required for normal system operation. `PATH` specifies directories where executable programs are searched when commands are run. `HOME` stores the path of the user's home directory. `USER` or `LOGNAME` identifies the currently logged-in user. `SHELL` defines the default command interpreter being used. `PWD` shows the present working directory. These variables help programs access system information efficiently. They are frequently used in shell scripts and automation tasks.

3. **Setting and Exporting Environment Variables.**
   Environment variables can be created or modified directly from the terminal. In Bash shell, a variable is assigned using `VAR=value`. To make it accessible to child processes, the `export VAR` command is used. Variables may be temporary for a session or permanently stored in files like `.bashrc` or `.profile`. Permanent storage allows automatic loading during login. Proper naming usually uses uppercase letters for readability. This feature provides flexibility in configuring software behaviour.

4. **Viewing and Removing Environment Variables.**
   Users can view environment variables using commands like `env`, `printenv`, or `echo` `$VARIABLE_NAME`. The `set` command displays both shell and environment variables. If a variable is no longer needed, it can be removed using the `unset` command. Checking variables helps troubleshoot issues related to command execution or application configuration. System administrators often inspect variables while debugging scripts. Proper management ensures stability and predictable system performance. This makes environment variables important in daily UNIX usage.

5. **Importance and Applications of Environment Variables.**
   Environment variables play a major role in UNIX system administration and software development. They allow programs to run correctly across different systems without code modification. Developers use them to store configuration values such as database paths or **API keys**. They improve portability by separating system settings from application code. Environment variables are also useful in automation, scripting, and deployment processes. Proper use increases security and maintainability of applications. Understanding them is essential for UNIX users, especially for academic and practical purposes.

To gain better insights on each topic of the study, an assignment is provided to us. It is evaluated in a convincing manner by letting us to clarify all our doubts and achieve due momentum on this subject.

Outcome of the Subject: This paper benefits us a lot in every aspect. Moreover, it makes us inclined to understand what our career demands. It is better to acknowledge that this paper abridges the gap between the academic world and professional life. In a nutshell, it reinstates a balance in our life by bringing equilibrium to succeed in the long run professionally.