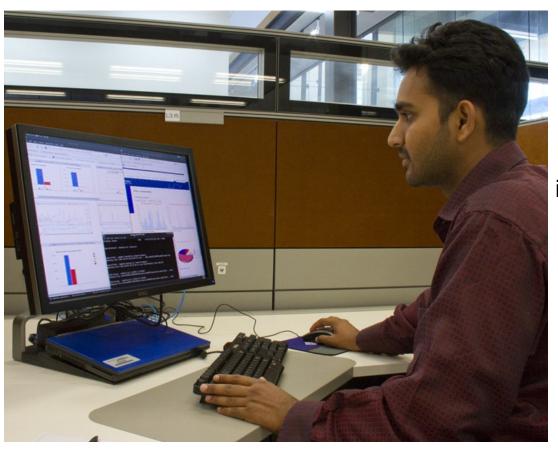# HSM analysis tools for pre-emptive management

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Objective

- To understand our system better.

- What/Where/When to expand.

- Provide justification to management.

- Provide detailed analysis.

- Detect issues.

Understanding your system

- Number of files

- Size of files

- Who are the power users?

- How busy is the system?

- Can we improve things?

- Do I need to plan for upgrades?

- How do I justify it to management?

Providing Analysis

- Log analysis

- Visualisation of statistics

- Pattern detection

- Error detection

- Usage patterns

- Problem analysis

- Growth patterns

Detecting issues

- File System configuration

- Device allocation

- Heavy users

- Heavy days

- Performance bottlenecks

- Growth requirements

Development Process

- Python - Importing Scripts

- Postgress - Store Log data

- PHP - Server - Back end

- HTML & CSS - Front end Design

- Google Visualization API – Interactive graphs

- Google Charts API – Static graphs

- Java script - Front end Functions