

## **SNS COLLEGE OF TECHNOLOGY**

Coimbatore-35. An Autonomous Institution



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### **COURSE NAME : 19CSB201 – OPERATING SYSTEMS**

**II YEAR/ IV SEMESTER** 

**UNIT – IV File Systems** 

**Topic: File Protection** 

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# **File Protection**



- File owner/creator should be able to control:
  - what can be done
  - by whom
- Types of access
  - Read
  - Write
  - Execute
  - Append
  - Delete
  - List



## Access Lists and Groups



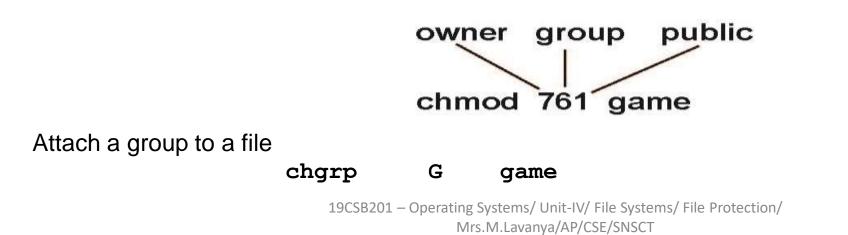
- Mode of access: read, write, execute
- Three classes of users on Unix / Linux

a) owner access	7	$\Rightarrow$	111 RWX
b) <b>group access</b>	6	$\Rightarrow$	1 1 0 RWX
c) <b>public access</b>	1	$\Rightarrow$	001

 Ask manager to create a group (unique name), say G, and add some users to the group.

 $D \setminus 1 / Y$ 

• For a particular file (say *game*) or subdirectory, define an appropriate access.





## Windows 7 Access-Control List Management



ListPanel.java Pr	operties		
General Security	Details	Previous Versions	
Object name: H		Patterns Material\Src\L	istPanel.java
SYSTEM			
🔏 Gregory G. G	iagne (gg	agne@wcusers.int)	
Guest (WCU	SERS\G	uest)	
StileAdmins (V	VCUSER	S\FileAdmins)	
State Administrator	s (FILES)	Administrators)	
To change permis	sions, clic	k Edit.	Edit
Permissions for Gu	iest	Allow	Deny
Full control			~
Modify			~
Read & execute	э.		~
Read			~
Write			~
Special permiss	ions		
For special permis- click Advanced.	sions or a	dvanced settings,	Advanced
Leam about acce	ss control	and permissions	
		OK Cancel	Apply

19CSB201 – Operating Systems/ Unit-IV/ File Systems/ File Protection/ Mrs.M.Lavanya/AP/CSE/SNSCT



# A Sample UNIX Directory Listing



-rw-rw-r	1 pbg	staff	31200	Sep 3 08:30	intro.ps
drwx	5 pbg	staff	512	Jul 8 09.33	private/
drwxrwxr-x	2 pbg	staff	512	Jul 8 09:35	doc/
drwxrwx	2 pbg	student	512	Aug 3 14:13	student-proj/
-rw-rr	1 pbg	staff	9423	Feb 24 2003	program.c
-rwxr-xr-x	1 pbg	staff	20471	Feb 24 2003	program
drwxxx	4 pbg	faculty	512	Jul 31 10:31	lib/
drwx	3 pbg	staff	1024	Aug 29 06:52	mail/
drwxrwxrwx	3 pbg	staff	512	Jul 8 09:35	test/







#### **TEXT BOOKS:**

- T1 Silberschatz, Galvin, and Gagne, "Operating System Concepts", Ninth Edition, Wiley India Pvt Ltd, 2009.)
- T2. Andrew S. Tanenbaum, "Modern Operating Systems", Fourth Edition, Pearson Education, 2010

#### **REFERENCES:**

- R1 Gary Nutt, "Operating Systems", Third Edition, Pearson Education, 2004.
- R2 Harvey M. Deitel, "Operating Systems", Third Edition, Pearson Education, 2004.
- R3 Abraham Silberschatz, Peter Baer Galvin and Greg Gagne, "Operating System Concepts", 9th Edition, John Wiley and Sons Inc., 2012.
- R4. William Stallings, "Operating Systems Internals and Design Principles", 7th Edition, Prentice Hall, 2011





