	4 Proceeds
*	Job 3cheduling
	by an 03 resputies to many diff. tasks
	by an os to many diff. tasks
-	the process scheduse
	manager that handles the removed of the kunning
	process from the con the removed of the lunning
	process can the bound
	pereticules & to out egy.
×	Process Scheduling:
	John Doncers Scheduling Quere: The Buffer
0.0	where processes resides & maiting for CPU
17	1 1913 ora A whose law and
1.	Job Queue : This queue stores all the process
E. L.	in the 343. Process State will be new.
ha	Last Seal
9.	Ready Bueye A named will and and a
	Ready Puece: A process which is ready to execute
	in the resides in the main memory &
ARIA A	seardy to Execute is called Ready Queue.
Aba	I I 191 mart day winner a dut of of of
3.	Writing / Device / I/19 Queue: All the processes which
0.9	are interrupted due to I/o request are
er G	unavailability of an Ilo device constitute this
	queue.
	water and the second se
	The state of the s
4.	Joh Ready Queue - 1 CPU
	I was all a top way able aget daying
1911	to or or the street of the office of the office of the order of the or
1	I 1 2 I I D waiting to
133	THO CALL TO CALL
	Queue - la
	to all a file to the traver state to a
310	the total and the second of th
	24042791 3253001 631130
	3 chedulete.
	1

0	
20/12	ANALYSIA DE MAL +
*	3 types of scheduler.
Q and A	Tob long term:  Selects some processes from the  Selects some processes of main  pool of processes of keep them in buffer of main  menuney.  Invoked very introquently (seconds, min) =>  Show in speed.
5 1/8/10	pool of processes & keep them in buffer of many
5 -	Invoked very infrequently (seconds, nun) =
-/	Inylemented bet ". the memory & ready of
9.	the las shoot teem in
	no. of ready & processes & assign it to the for execution.
~	Envoked very frequently (null'seconds) => fast schedular
and the same of th	Thomas do den en one A course place !
	Muddle Term Scheduler:
	Involemented bet up & ready
	a to take out a running job from (PU& sends
	it back to Ready QD of the state
- 3.49	used by the sys to schedule the processes when
3,34	a running job is intersupted to leave the CPU
	used in timeshaving sys.
*	Process Hierachies:
	when a process creates another
	process, then the parent of the child processes tend
	to associate with each attack in certain wery & furthe
	the child popular can all a me la me
	it required.
-	This parent child like Ment
	form a hierachy, called Process Hierarchy.
	- Statutouton +

-	There are diff. ways for treating new process.
	1. Execution. The wild process is executed by the parent process concurrently at it waits till all children get terminated.
	1. Execution. The child process we it waits till
	all children get terminated.
	20.01
	a. Shaking: The parent or child process shakes
	all residueces like member at files or children
	process shortes a subset of parents resources.
*	Problem Concuerent process
4	The same and the s
×	Concurrency is the execution of the multiple
	The state of the s
	The Ma Marken There are
	kunning in parcellel.
	The kunning process cilledy's williams
	other through passing mes
	This shaving of resources orthogys (ourse to problem
11.0	like deadlock & resources starvation.
1,15.77	Painuple
K	Problems in Concuerency
9	Both interleaved & overlapped
	processes can be vierned as eg. of considerent process
-	The relative speed of execution cannot be predicted
	91 depends cen:
344,	1. The artivities of other processes.
	o. The way os handles interrupts.
	3. The 3cheduling policies of the 08 19

*	Problems in Contuctenty
5	sharing global residurces othering of global residurces
	e 1300 11. alphal raniable
- 1	to perform read of write the execution becomes
21 4	district the same in the trade of the same as a same as
9	aptimal allocation of resources of becomes
	difficult for 03 to manage the allocation of
	Late the channel.
3	to simply lock the channel of prevents its use
	by rother processes.
Д.	Locating programming Expos:  9t is very difficult to
	Lorde a g progm. Erroe bior reporte aire usually
*	Advantages col Concurrency
	at pulliple apply
1	The state of the s
	appr. at the same time.
2.	Better resource utilization
	It enables that the
	by other I for other cyspon.
	The state of the s

3.	Better average comme demonstration
100	Better average response time:
1	our to unwelcte the papers within time on before
12	the next process.
4	Better performence
	when I opp uses only the
	processor & another approuses conty the disk deiver
LAN.	I then the time to seup both app" concidency
habi	be shorter than the time to coun
*	Critical Section Problem.
	The critical section is a code
2.10	segment where the shound when more than one
10	processes access the same code segment that segment
47	is known as the chitical dection.
	The state of the s
	Rules for mitical dection
100	Address of the second of the s
1.	Mutual Exclusion and harried as assert and
	It is used for controlling acres
	to showed resources.
	It includes paioeity inheritance mechanism to avoid
	Extended priority.
	It implies and more properly can be intole the witiget
	It implies only one process can be inside the cuitical section at any
	It is used when no. of is in the cuitical
	delcition;
	Bound waiting: when a process makes a request
	for getting into critical section there is a specific vinit about no cop processes.
	specific limit about on cal processes.
	2011年1日 - 1911年1日 - 1911年

4	Synchronization:  It is the many by which processes.  That alkane the dame memory space are managed in on as.
	that of home the same memory space
	in our da
	Two types of synchronic
1	Process Synchronization:  The simultaneous execution  est noutriple threads are processes to reach certain  result is to
	est nultiple threads are processed to reach certain
	about is is
٥.	The body and and the
	at data to keep multiple apples of data coherent
U	af data to keep multiple copies of data conhesent with fach other, we mountain desta integrity.
*	Deadlock.
*	I is a lituration in which more than
*	ane process is blocked box it is holding a researche
*	Il is a lituration in which more than
*	ane process is blocked boox it is holding a researched  ane process is blocked boox it is holding a researched  to also requires some resource that is acquired  by some other process  Resource that is acquired
*	gt is a situation in Johich more than one process is blocked how it is holding a resource t also requires summe resource that is acquired by some other process  Resource that is acquired holds  reed product
*	St is a situation in which more than one poorest is blocked have it is holding a resource t also requires hame resource that is arquired by some other process  Process 2  State  Process 1  Looks  Process 1
*	one poncess is blocked beax it is holding a researched  to also requises home resource that is arquised  by some other process.  Process 9  State  Process 1
*	St is a situation in which more than one pooless is blocked how it is holding a research t also requises home resource that is acquired by some other process  Resource holds  Process 9 State Process  Resource o reeds  Deadlock occurs on occurs if the following
*	gh is a situation in which more than  one pooress is blocked how it is holding a research  t also requires home resource that is arquired  by some other process.  Process 9 State Process  Resource 0 needs  Deadlock occurs in the following  conditions arise.
*	Stig a situation in which more than one powers is blocked how it is holding a resource t also requires sume resource that is arguired by some other process  Process 9 State Process  Resource 0 reeds  Deadlock occurs in the following conditions owise.
*	St is a situation in which more than one poncess is blocked how it is holding a resource to also requises some resource that is arguised by some other poncess.  Process 9 State Process I holds  Process 9 State Process I  Resource 0 reeds  Deadlock occurs in the following conditions owise.
1.	Stig a Lituation in which more than one powers is blocked how it is holding a resource t also requires home resource that is arguired by some other powers  Process 2 State Process  Resource 2 State  Deadlock occurs in the following conditions owise.

3	No Paremation a solution from
	No. Preemption: a resource cannot be taken from a process unless the process relaises the resources.
	A NAME OF THE PARTY OF THE PART
4	Circular won't a det of processes are wenting for
	Cientar won't a set of processes are monting for
4	methods for hundling deadlock.
and the same	Description of the Late of the Control of the Contr
1.	Deadlock prevention at avoidance
9.	Deadlack detection & recovery
3.	Typner the parblem alogether.
*	File Management.
	FM in 03 is the software that
	houndles at manages the files.
-	The Am in as allows users to weate a new
	tile, modify & delete the ald file present at different
	docutions of the computer dystem.
	The file mangement suftware manages the locations
	of the file stored, In that file can be used at
	extracted, as lacented fasily
	The file management in the 0s porvides TID aperation
an the	which supposet read, write apera on the tile
	The special of the strain day of the
	Root Directory
-	wellet kythoping to stand on example
1	Directory, Directory on Directory 3
	Deministration of the Courses
had J	FILE 1 Sub Directory File 9
	a la da também la
	File 3 Pile 4
	that are double stilled and wind the
	residence were son a class bateralla
	7

	20 Languagents.
+	Enle management fun, companents,
10330	The light the state of the stat
1.	characteristics of files like size,
	Charles Charles
	location on disk, etc.
0	The state of the s
	truk that can be performed an the
	file operations:  task that can be performed on the
	The Course of th
9.	File Access permission:
	Logical method of file storage in a
4 31-	emipter eyes and of mist
	told the descences the television in
+	aperatine an file.
	a farring of I blo aft a falsh a Binara of the
1.	Creating 19 19 19 Deleting
2	Reading 5. Touncouting.
3.	waiting one has been all of the
1	of printed technology balance of the
*	Device Management.
	om in os manages all the hardware
	ar vietual device of a computer
	The device to sys. allocates I/O devices to the
	process on basis of priority & deallocates too.
	Types of DM.
1.	Dedicated Device
	The Device which is dedicated for
	1 process at a time is called DD; eg. Printer, tape
	drivers, etc.
2.	showe Devices: Device which can be showed pox
	allocated beto a cor more processes.

3	Vietual Device.
	into shaked device it is called virtual perice
4	Rundamental type of I D devices
,	Boot Device
	Boot device oraine the part of houdworke which consists of doctor are files necessary to Start computer
9.	Character Device
	A device which works on the given input & don't howe their cours meniory is colled to
3 .	Netronal Device:
	The device helps to connect the conjustion to a network by teansmitting the duta packs known as network devices.