



(1) a) Realocação consiste em alterar a localização do processo na memória.

Ex: Memória totalmente cheia, espaço dedicado no espaço da memória indisponível.

b) First fit: O processo é colocado no primeiro espaço da memória.

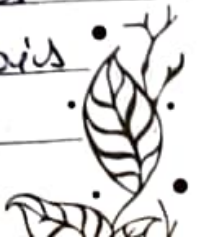
Best fit: O processo é colocado no espaço da memória que lhe cabe com menos disponível.

Worst fit: O processo é colocado no espaço onde ocorre mais desperdício.

O melhor é o worst fit, mesmo que desperdiça mais memória, ele deixará espaços maiores que poderão ser utilizados por outros processos.

c) É imprescindível pois em um sistema sem realocação, cada programa compilado teria que saber a estrutura física da memória onde seria rodado, além de o SO não poder colocar os programas onde ele quiser, assim os programas teriam de ser fixos na memória.

d) Se um sistema não fizer swapping de paginação, ele terá de carregar seus programas por inteiro na memória e caso um programa for muito grande para rodar, ele não irá rodar. Assim, limitando o crescimento dos ~~processos~~ programas, pois não poderiam ocupar mais espaço.



② a)  $X = 60\%$  a) 1 núcleo

$$1 - (0,6)^2 = 0,64 \Rightarrow 9,32 \text{ pp}$$

$$0,32 \text{ At} = 8$$

$$\text{At} = 25$$

b) 2 núcleos

$$1 - 0,6 = 0,4$$

$$0,4 \text{ At} = 8$$

$$\text{At} = 20$$

③

$$\cancel{4R} - \cancel{3W} - \cancel{3R} - \cancel{3W} - \cancel{9W} - \cancel{3R} - \cancel{4R} - \cancel{4R} - \cancel{4R} - \cancel{7W} - \cancel{8W} - \cancel{7R} - \cancel{7R} - \cancel{7W} - \cancel{9R} - \cancel{7R} - \cancel{9W} - \cancel{9R} - \cancel{9W} - \cancel{3W}$$

$$\downarrow$$

$$R=0$$

Acerto:  $\square \square \square = \frac{12}{20} = 60\%$   
 Errores:  $\square \square$

bet: \* \* \* \* \* | \* \* \* \* \*  
File: \* \* \* \* \* | \* \* \* \* \* 7 2 8 0 3

WRL

~~7R-3W-3R-3W-9W-3R-7R-7R-7R-7W-8W-3R-3R-7W-9R-7R-9W~~  
~~-9R-6W-3W~~

Acerto:  $\square \square \square$   $\frac{11}{20} = 55\%$   
 ERRO:  $\square \square 1$

bit

File ~~1~~ ~~2~~ ~~3~~ ~~4~~ ~~5~~ ~~6~~ ~~7~~ ~~8~~ ~~9~~ ~~10~~ ~~11~~ ~~12~~ ~~13~~ ~~14~~ ~~15~~ ~~16~~ ~~17~~ ~~18~~ ~~19~~ ~~20~~ ~~21~~ ~~22~~ ~~23~~ ~~24~~ ~~25~~ ~~26~~ ~~27~~ ~~28~~ ~~29~~ ~~30~~ ~~31~~ ~~32~~ ~~33~~ ~~34~~ ~~35~~ ~~36~~ ~~37~~ ~~38~~ ~~39~~ ~~40~~ ~~41~~ ~~42~~ ~~43~~ ~~44~~ ~~45~~ ~~46~~ ~~47~~ ~~48~~ ~~49~~ ~~50~~ ~~51~~ ~~52~~ ~~53~~ ~~54~~ ~~55~~ ~~56~~ ~~57~~ ~~58~~ ~~59~~ ~~60~~ ~~61~~ ~~62~~ ~~63~~ ~~64~~ ~~65~~ ~~66~~ ~~67~~ ~~68~~ ~~69~~ ~~70~~ ~~71~~ ~~72~~ ~~73~~ ~~74~~ ~~75~~ ~~76~~ ~~77~~ ~~78~~ ~~79~~ ~~80~~ ~~81~~ ~~82~~ ~~83~~ ~~84~~ ~~85~~ ~~86~~ ~~87~~ ~~88~~ ~~89~~ ~~90~~ ~~91~~ ~~92~~ ~~93~~ ~~94~~ ~~95~~ ~~96~~ ~~97~~ ~~98~~ ~~99~~ ~~100~~ ~~101~~ ~~102~~ ~~103~~ ~~104~~ ~~105~~ ~~106~~ ~~107~~ ~~108~~ ~~109~~ ~~110~~ ~~111~~ ~~112~~ ~~113~~ ~~114~~ ~~115~~ ~~116~~ ~~117~~ ~~118~~ ~~119~~ ~~120~~ ~~121~~ ~~122~~ ~~123~~ ~~124~~ ~~125~~ ~~126~~ ~~127~~ ~~128~~ ~~129~~ ~~130~~ ~~131~~ ~~132~~ ~~133~~ ~~134~~ ~~135~~ ~~136~~ ~~137~~ ~~138~~ ~~139~~ ~~140~~ ~~141~~ ~~142~~ ~~143~~ ~~144~~ ~~145~~ ~~146~~ ~~147~~ ~~148~~ ~~149~~ ~~150~~ ~~151~~ ~~152~~ ~~153~~ ~~154~~ ~~155~~ ~~156~~ ~~157~~ ~~158~~ ~~159~~ ~~160~~ ~~161~~ ~~162~~ ~~163~~ ~~164~~ ~~165~~ ~~166~~ ~~167~~ ~~168~~ ~~169~~ ~~170~~ ~~171~~ ~~172~~ ~~173~~ ~~174~~ ~~175~~ ~~176~~ ~~177~~ ~~178~~ ~~179~~ ~~180~~ ~~181~~ ~~182~~ ~~183~~ ~~184~~ ~~185~~ ~~186~~ ~~187~~ ~~188~~ ~~189~~ ~~190~~ ~~191~~ ~~192~~ ~~193~~ ~~194~~ ~~195~~ ~~196~~ ~~197~~ ~~198~~ ~~199~~ ~~200~~ ~~201~~ ~~202~~ ~~203~~ ~~204~~ ~~205~~ ~~206~~ ~~207~~ ~~208~~ ~~209~~ ~~210~~ ~~211~~ ~~212~~ ~~213~~ ~~214~~ ~~215~~ ~~216~~ ~~217~~ ~~218~~ ~~219~~ ~~220~~ ~~221~~ ~~222~~ ~~223~~ ~~224~~ ~~225~~ ~~226~~ ~~227~~ ~~228~~ ~~229~~ ~~230~~ ~~231~~ ~~232~~ ~~233~~ ~~234~~ ~~235~~ ~~236~~ ~~237~~ ~~238~~ ~~239~~ ~~240~~ ~~241~~ ~~242~~ ~~243~~ ~~244~~ ~~245~~ ~~246~~ ~~247~~ ~~248~~ ~~249~~ ~~250~~ ~~251~~ ~~252~~ ~~253~~ ~~254~~ ~~255~~ ~~256~~ ~~257~~ ~~258~~ ~~259~~ ~~260~~ ~~261~~ ~~262~~ ~~263~~ ~~264~~ ~~265~~ ~~266~~ ~~267~~ ~~268~~ ~~269~~ ~~270~~ ~~271~~ ~~272~~ ~~273~~ ~~274~~ ~~275~~ ~~276~~ ~~277~~ ~~278~~ ~~279~~ ~~280~~ ~~281~~ ~~282~~ ~~283~~ ~~284~~ ~~285~~ ~~286~~ ~~287~~ ~~288~~ ~~289~~ ~~290~~ ~~291~~ ~~292~~ ~~293~~ ~~294~~ ~~295~~ ~~296~~ ~~297~~ ~~298~~ ~~299~~ ~~300~~ ~~301~~ ~~302~~ ~~303~~ ~~304~~ ~~305~~ ~~306~~ ~~307~~ ~~308~~ ~~309~~ ~~310~~ ~~311~~ ~~312~~ ~~313~~ ~~314~~ ~~315~~ ~~316~~ ~~317~~ ~~318~~ ~~319~~ ~~320~~ ~~321~~ ~~322~~ ~~323~~ ~~324~~ ~~325~~ ~~326~~ ~~327~~ ~~328~~ ~~329~~ ~~330~~ ~~331~~ ~~332~~ ~~333~~ ~~334~~ ~~335~~ ~~336~~ ~~337~~ ~~338~~ ~~339~~ ~~340~~ ~~341~~ ~~342~~ ~~343~~ ~~344~~ ~~345~~ ~~346~~ ~~347~~ ~~348~~ ~~349~~ ~~350~~ ~~351~~ ~~352~~ ~~353~~ ~~354~~ ~~355~~ ~~356~~ ~~357~~ ~~358~~ ~~359~~ ~~360~~ ~~361~~ ~~362~~ ~~363~~ ~~364~~ ~~365~~ ~~366~~ ~~367~~ ~~368~~ ~~369~~ ~~370~~ ~~371~~ ~~372~~ ~~373~~ ~~374~~ ~~375~~ ~~376~~ ~~377~~ ~~378~~ ~~379~~ ~~380~~ ~~381~~ ~~382~~ ~~383~~ ~~384~~ ~~385~~ ~~386~~ ~~387~~ ~~388~~ ~~389~~ ~~390~~ ~~391~~ ~~392~~ ~~393~~ ~~394~~ ~~395~~ ~~396~~ ~~397~~ ~~398~~ ~~399~~ ~~400~~ ~~401~~ ~~402~~ ~~403~~ ~~404~~ ~~405~~ ~~406~~ ~~407~~ ~~408~~ ~~409~~ ~~410~~ ~~411~~ ~~412~~ ~~413~~ ~~414~~ ~~415~~ ~~416~~ ~~417~~ ~~418~~ ~~419~~ ~~420~~ ~~421~~ ~~422~~ ~~423~~ ~~424~~ ~~425~~ ~~426~~ ~~427~~ ~~428~~ ~~429~~ ~~430~~ ~~431~~ ~~432~~ ~~433~~ ~~434~~ ~~435~~ ~~436~~ ~~437~~ ~~438~~ ~~439~~ ~~440~~ ~~441~~ ~~442~~ ~~443~~ ~~444~~ ~~445~~ ~~446~~ ~~447~~ ~~448~~ ~~449~~ ~~450~~ ~~451~~ ~~452~~ ~~453~~ ~~454~~ ~~455~~ ~~456~~ ~~457~~ ~~458~~ ~~459~~ ~~460~~ ~~461~~ ~~462~~ ~~463~~ ~~464~~ ~~465~~ ~~466~~ ~~467</~~



⑦  $X = 10\,050$      $Y = 5200$

$$EV_X = 10\,050$$

$$\text{Offset} = 10\,050 - 8 \cdot 1024 = 1858$$

$$\left. \begin{array}{l} EV_X = 10\,050 \\ \text{Offset} = 10\,050 - 8 \cdot 1024 = 1858 \end{array} \right\} EF_X = 2 \cdot 1024 + 1858 \rightarrow EF_X = 3906$$

$$EV_Y = 5200$$

$$\text{Offset} = 5200 - 4 \cdot 1024 = 1104$$

$$\left. \begin{array}{l} EV_Y = 5200 \\ \text{Offset} = 5200 - 4 \cdot 1024 = 1104 \end{array} \right\} EF_Y = 0 \cdot 1024 + 1104 \rightarrow EF_Y = 1104$$