Cse 474

1. the size of stack is not fixed which use the maximize the utilization of space of runtime. As the program executes their size can change. Because these area are dynamic in the nature. Theheap manager will allocates the memory, because the runtime overhead of taking care of defragmentation and garbage collection. The garbage collection enables the runtime system into detect unused data elements and resue the storage every times. For example, in the heap, when you want to allocate one elements, it will take a big circle to get this done.
2. Control stack manages and keeps track of the activations that are currently in progress. And control stack manages and keeps track of the activations that are currently in progress. The control stack can be nested as the procedure calls or activations nest in time such that if p calls q, then the activation of q is nested within the activation of p. This is happen in the t access identifier information also, The activation record contains the memory for all the local variables of the procedure, depending on the way by which activation record is created, the target code has to be generated accordingly to access the variables declared in another procedure to handle any nonlocal identifier references.
3. Registers are the fastest locations in the memory hierarchy. But in sometime , this resource is limited. In algorithm, register allocation is an NP-complete problem. However, this problem can be reduced to graph coloring to get allocation and tasks. Therefore a good register allocator computes an effective approximate solution to a hard problem. The register allocator determines which values will reside in the register and these will hold each of those values.
4. Value is a , reference is &a,
   In call by reference method, parameters are passed by reference, the caller passes a pointer to the called procedure. This means the storage address of each actual parameter. If the actual parameter is a name or an expression having an l-value, then the l-value itself is passed However, if the actual parameter is a + b or 2 etc. which is having no l-value, then that expression is calculated in a new location, and the address of that new location is passed. Thus, the changes will be made in the calling procedure are reflected when it is calling.
   Value is the simplest and most commonly used method of parameter passing. The actual parameters are evaluated or copied and then their r-values are passed to the called procedure. And in this time r-value refers to the value contained in the storage. The parameter are chosen in the locations which belong to the corresponding formal parameters of the called procedure. Reference is necessary when it call to procedure, and some time the actual parameter is a name or expression having l value , it not work.