16 Lecture - CS401

Important Subjective

1. **What is a calling convention?**
   Answer: A calling convention is a set of rules that governs how a program calls a function and returns from it.

   What are the three main calling conventions used in Windows?
   Answer: The three main calling conventions used in Windows are cdecl, stdcall, and fastcall.

   What is the difference between cdecl and stdcall?
   Answer: The main difference between cdecl and stdcall is the order in which arguments are pushed onto the stack.

   What is the advantage of using the fastcall calling convention?
   Answer: The fastcall calling convention allows for more efficient use of registers.

   What is the purpose of the thiscall calling convention?
   Answer: The thiscall calling convention is used by C++ compilers to pass the object pointer as an implicit parameter to member functions.

   What is the disadvantage of using the stdcall calling convention?
   Answer: The disadvantage of using the stdcall calling convention is that it can cause problems when calling functions from different programming languages.

   What is the role of a calling convention in program optimization?
   Answer: The choice of calling convention can have an impact on program performance, as some calling conventions are more efficient than others.

   What is the purpose of a calling convention in function prototypes?
   Answer: The calling convention is included in function prototypes to ensure that functions are called correctly.

   What is the significance of register allocation in calling conventions?
   Answer: The choice of calling convention can impact the number of registers available for use by the program.

   What is the role of calling conventions in inter-language calling?
   Answer: Calling conventions can impact the ability of programs written in different languages to call each other's functions.