Dynamic Cast

Only to be used with pointer and references to classes. (including void\*)

It guaranties that the type cast actually point to a valid object of the converted pointer type.

Upcast (derived\_ptr to base\_ptr)

Downcast (base\_ptr to derived\_ptr) , for polymorphic virtual function holding classes (only if the target object actually exist).

Static Cast

Between related types

Upcast or down cast

Also implicit casts like C

Reinterpret cast

Any to any, programmers resposibilty

Const cast

Removing const\*