SDL2 Cheat Sheet (Unit■5 Lecture)

Window & Renderer Creation

Function	Description
SDL_Init(flags)	Initialize SDL subsystems (e.g., SDL_INIT_VIDEO)
SDL_Quit()	Shut down SDL
SDL_CreateWindow(...)	Create a window
SDL_DestroyWindow(window)	Destroy a window
SDL_CreateRenderer(window, index, flags)	Create hardware■accelerated renderer
SDL_DestroyRenderer(renderer)	Destroy renderer

Drawing / Rendering

Function	Description
SDL_GetWindowSurface(window)	Get window's framebuffer surface
SDL_UpdateWindowSurface(window)	Update window after surface drawing
SDL_SetRenderDrawColor(renderer,r,g,b,a)	Set current drawing color
SDL_RenderClear(renderer)	Clear screen to current draw color
SDL_RenderDrawLine(renderer,x1,y1,x2,y2)	Draw straight line
SDL_RenderDrawRect(renderer,&rect)	Draw rectangle outline
SDL_RenderFillRect(renderer,&rect)	Draw filled rectangle
SDL_RenderDrawPoint(renderer,x,y)	Draw a single pixel
SDL_RenderCopy(renderer,texture,src,dst)	Copy a texture to renderer
SDL_RenderPresent(renderer)	Show rendered frame on screen
SDL_BlitSurface(src,srcrect,dst,dstrect)	Copy one surface onto another (old■style)

Image Loading (SDL2_image)

Function	Description
IMG_Init(flags)	Initialize SDL_image (e.g., PNG/JPG)
IMG_Quit()	Shut down SDL_image
IMG_Load(path)	Load image file into an SDL_Surface

Surface / Texture Conversion

Function	Description
SDL_ConvertSurface(surface,format,flags)	Convert surface to target format for faster blits

SDL_CreateTextureFromSurface(renderer,surface)	Convert loaded surface to GPU texture
SDL_FreeSurface(surface)	Free surface memory
SDL_DestroyTexture(texture)	Free texture memory

Event Handling

Function	Description
SDL_Event	Structure for user input events
SDL_PollEvent(&event)	Poll for next event
SDL_QUIT	Event type for clicking window close button
SDL_KEYDOWN / SDLK_ESCAPE	Event type & keycode for keyboard input

Diagnostics

Function	Description
SDL_GetError()	Get error message from SDL
IMG_GetError()	Get error message from SDL_image