-V8 and SpiderMonkey are both JS engines

-chrome uses V8 created by Google and Firefox uses SpiderMonkey created by Mozilla

-SpiderMonkey is the first JS engine introduced and V8 is relatively new introduced as part of Chrome.

-Their main difference is in compilation. SpiderMonkey compiles JS to intermediate language which is interpreted. But V8 compiles JS to machine instructions directly, which eliminated interpreter need.

-Performance is almost similar. V8 when first was introduced , has updated many features and had quite a performance lead but now SpiderMonkey hs closed the gap with subsequent updates.

-both JS compilers have been incorporated into non browser products such as Node(V8); MongoDB (SpiderMonkey)