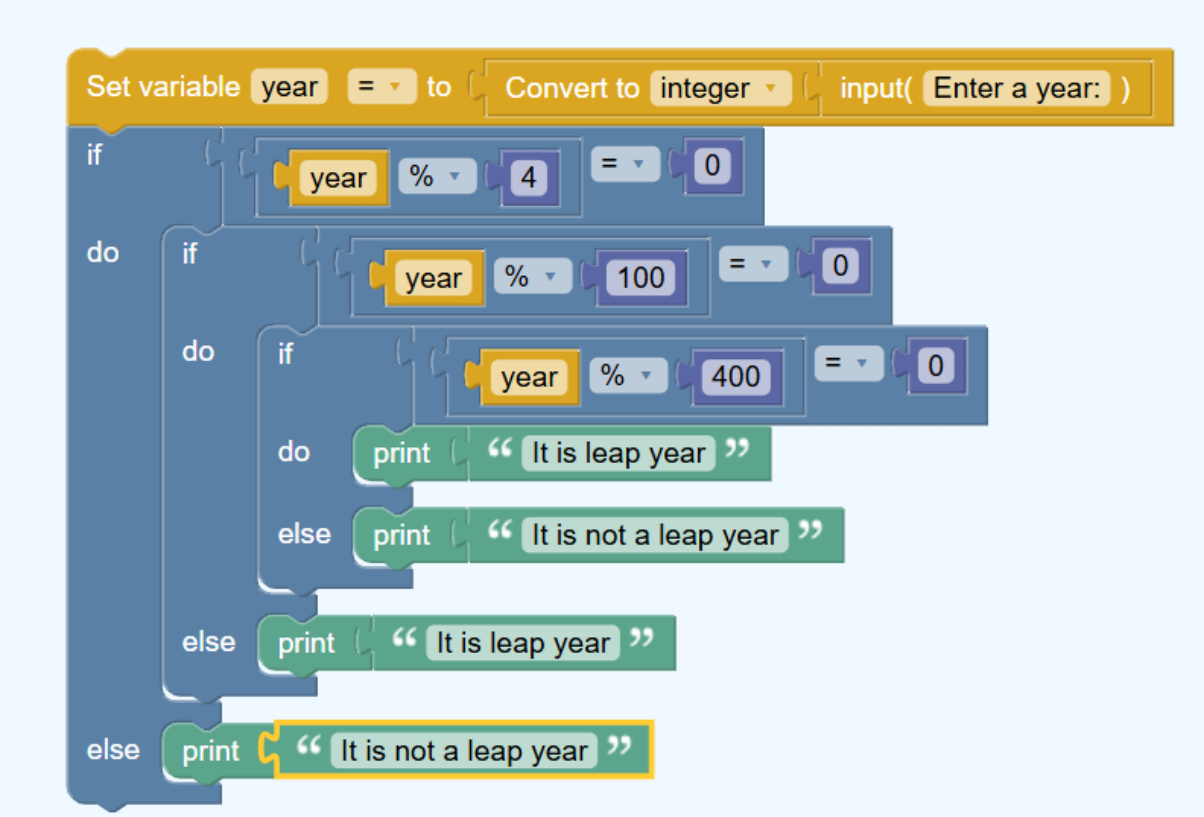
Leap Year Detector

ALGORITHM:

1. **Input**: Enter a year.
2. **Condition 1**: If the year is divisible by 4:
    - **Condition 2**: If the year is divisible by 100:
        - **Condition 3**: If the year is divisible by 400:
            - **Output**: It's a leap year.
        - **Else**:
            - **Output**: It's not a leap year.
    - **Else**:
        - **Output**: It's a leap year.
3. **Else**:
    - **Output**: It's not a leap year.

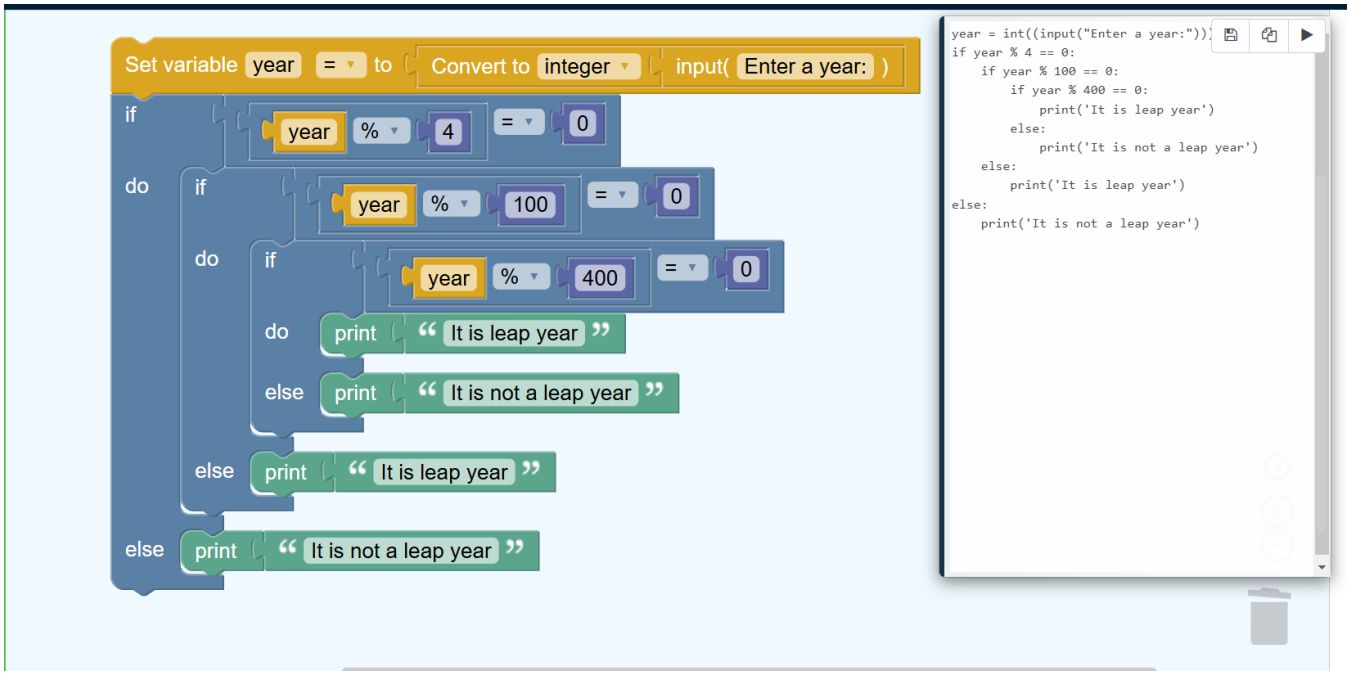
BLOCK IMAGE:



GENERATED CODE:

```
year = int((input("Enter a year:")))
if year % 4 == 0:
    if year % 100 == 0:
        if year % 400 == 0:
            print('It is leap year')
        else:
            print('It is not a leap year')
    else:
        print('It is leap year')
else:
    print('It is not a leap year')
```

SIMULATION:



LEAP YEAR TIMELINE:

List of leap years from 1900 to 3000

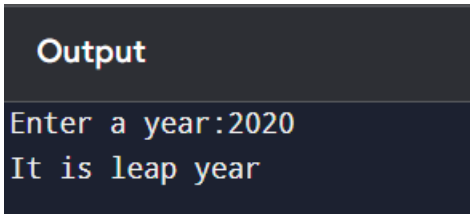
The table below lists the leap years from 1900 to 3000. We have shown in red the 4 years which during this period are not when we might have thought the opposite.

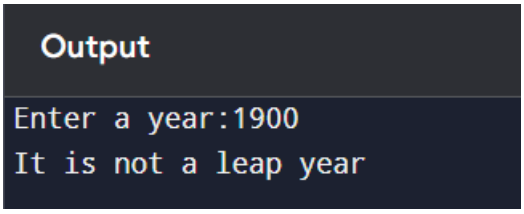
1900	1904	1908	1912	1916	1920	1924	1928	1932	1936	1940	1944	1948	1952	1956	1960
1964	1968	1972	1976	1980	1984	1988	1992	1996	2000	2004	2008	2012	2016	**2020**	2024
2028	2032	2036	2040	2044	2048	2052	2056	2060	2064	2068	2072	2076	2080	2084	2088
2092	2096	**2100**	2104	2108	2112	2116	2120	2124	2128	2132	2136	2140	2144	2148	2152
2156	2160	2164	2168	2172	2176	2180	2184	2188	2192	2196	**2200**	2204	2208	2212	2216
2220	2224	2228	2232	2236	2240	2244	2248	2252	2256	2260	2264	2268	2272	2276	2280
2284	2288	2292	2296	**2300**	2304	2308	2312	2316	2320	2324	2328	2332	2336	2340	2344
2348	2352	2356	2360	2364	2368	2372	2376	2380	2384	2388	2392	2396	2400	2404	2408
2412	2416	2420	2424	2428	2432	2436	2440	2444	2448	2452	2456	2460	2464	2468	2472
2476	2480	2484	2488	2492	2496	**2500**	2504	2508	2512	2516	2520	2524	2528	2532	2536
2540	2544	2548	2552	2556	2560	2564	2568	2572	2576	2580	2584	2588	2592	2596	2600
2600	2604	2608	2612	2616	2620	2624	2628	2632	2636	2640	2644	2648	2652	2656	2660
2664	2668	2672	2676	2680	2684	2688	2692	2696	**2700**	2704	2708	2712	2716	2720	2724
2728	2732	2736	2740	2744	2748	2752	2756	2760	2764	2768	2772	2776	2780	2784	2788
2792	2796	2800	2804	2808	2812	2816	2820	2824	2828	2832	2836	2840	2844	2848	2852
2796	2800	2804	2808	2812	2816	2820	2824	2828	2832	2836	2840	2844	2848	2852	2856
2860	2864	2868	2872	2876	2880	2884	2888	2892	2896	**2900**	2904	2908	2912	2916	2920
2924	2928	2932	2936	2940	2944	2948	2952	2956	2960	2964	2968	2972	2976	2980	2984
2988	2992	2996	**3000**												

The years 1900, 2100, 2200, 2300, 2500, 2600, 2700, 2900 and 3000 are not leap years.

More information available on : www.calendar.best

OUTPUTS:





IMPROVEMENTS:

- Continuous Input: The program will keep asking for a year until you explicitly type "done," making it more interactive.
- Graceful Exit: The user can stop the loop easily by typing "done" without needing to manually terminate the program.