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(71) **Applicant** *(for all designated States except US)*: **SIX CONTINENTS HOTELS, INC.** [US/US]; 3 Ravinia Drive, Suite 100, Atlanta, GA 30346 (US).

(72) **Inventors; and**

(75) **Inventors/Applicants** *(for US only)*: **GONZALEZ, Dario** [US/US]; 2030 Ector Overlook, Kennesaw, GA 30152 (US). **ONG, Tahchuan** [US/US]; 3045 Brockton Close, Marietta, GA 30068 (US). **TAN, Darren, Yeesoon** [MY/US]; 390 17th Street, Unit 5011, Atlanta, GA 30363 (US). **MCCLURE, Jonathan, P.** [US/US]; 2470 Hamptons Passage, Alpharetta, GA 30005 (US). **MATTEO, Santiago** [CL/US]; 2172 Deep Woods Way, Marietta, GA 30062 (US). **RAJARATHINAM, Rajienderkumar** [IN/US]; 4867 Ashford Dunwoody Road, Apt. 8315, Dunwoody, GA 30338 (US).

(74) **Agents**: **ADAMS, Scott, S.** et al.; Kilpatrick Townsend & Stockton LLP, Two Embarcadero Center, 8th Floor, San Francisco, CA 94111-3834 (US).

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(54) **Title**: BOTTOM-UP OPTIMIZED SEARCH SYSTEM AND METHOD

(57) **Abstract**: A system and method for searching for hotel rooms is provided. A pre-compute database comprising real-time availability attributes associated with hotel rooms on a plurality of length of stays may be generated, and a query for at least one hotel for a date range may be received. The availability of each day within the date range on a plurality of length of stays may be calculated by applying business requirements according to the query. Final availability may be created for each day within the date range on the plurality of length of stays by combining the availability from the pre-compute database and the query attributes. A final availability of hotel rooms may be formatted for the at least one hotel for each day within the date range on the plurality of length of stays.