GUJARAT TECHNOLOGICAL UNIVERSITY
(GTU)
INNOVATION COUNCIL (GIC)
Patent Search & Analysis Report
(PSAR)

Date of Submission : 24/09/2016

Dear **Ghanta Sarfaraz Mehboobali,**

Studied Patent Number for generation of PSAR	:	16BE7_130430116031_4

PART 1: PATENT SEARCH DATABASE USED

1. Patent Search Database used	:	Google Patents
Web link of database	:	https://patents.google.com/
2. Keywords Used for Search	:	appointment shop,Appointment,Appointment app
3. Search String Used	:	Appointment shop
4. Number of Results/Hits getting	:	3888

PART 2: BASIC DATA OF PATENTED INVENTION /BIBLIOGRAPHIC DATA

5. Category/ Field of Invention	:	Computer/IT Engineering
6. Invention is Related to/Class of Invention	:	Customer service
6 (a) : IPC class of the studied patent	:	G06Q10/063116
7. Title of Invention	:	Automated job scheduling based on resource availability
8. Patent No.	:	US7502747B1
9. Application Number	:	US09997616
9 (a) : Web link of the studied patent	:	https://patents.google.com/patent/US7502747B1
10. Date of Filing/Application (DD/MM/YYYY)	:	29/11/2001
11. Priority Date (DD/MM/YYYY)	:	29/11/2001
12. Publication/Journal Number	:	
13. Publication Date (DD/MM/YYYY)	:	10/03/2009
14. First Filled Country : Albania	:	United States

15. Also Published as

Sr.No	Country Where Filled	Application No./Patent No.
1		

16. Inventor/s Details.

Sr.No	Name of Inventor	Address/City/Country of Inventor
1	Ehud Pardo	CA, Mountain View
2	Dan Grunspan	Bellevue CA

17. Applicant/Assignee Details.

Sr.No	Name of Applicant/Assignee	Address/City/Country of Applicant
1	Microsoft Technology Licensing LLC	Redmond WA (US)

18. Applicant for Patent is   **:**   Company

PART 3: TECHNICAL PART OF PATENTED INVENTION

19. Limitation of Prior Technology / Art

before there was no Automated job scheduling system. no automatic support was there.

20. Specific Problem Solved / Objective of Invention

Each job is defined in terms of the tasks/services required to do the jobs, using resources needed to carry out those tasks/services at different times during a scheduling period. Each available resource needed for each task/service is associated with a job ID and different start times for a job, forming proposals. The proposals are preferably created prior to the time that any appointments are made to do the job. If an appointment time requested by a customer to have the job done is available among the proposals created, the appointment is scheduled using the proposal. As each appointment is scheduled, changed, or canceled, the available proposals for the job are automatically modified to reflect the changes in the time that each resource is available to do the tasks/services required for the job

21. Brief about Invention

Service providers comprise a substantial portion of the nation's economy. Most service providers perform specific jobs that are common to a specific type of business. For example, an automobile repair business might do a wide range of automotive diagnostic and repair jobs, each job including a plurality of tasks that are carried out using various resources. For example, a job referred to as "disk brake pad replacement" requires that a series of tasks be done, including: positioning a vehicle on a hydraulic hoist, removing the wheels to access the brake rotors and brake pads, removal of the brake pad assembly on each wheel, removing and turning the brake rotors (machining the rotors) to eliminate surface blemishes, remounting the brake rotors on each wheel, replacing the worn brake pads with new brake pads on each wheel, final inspection, and removing the vehicle from the hoist. To carry out this job, several mechanical resources are required. Specifically, a hydraulic hoist must be provided to lift the vehicle, and a brake rotor turning machine must be available to turn each brake rotor. In addition, personnel are required to carryout out each task included in the job. Although one or more mechanics at a business might be able to do all of these tasks, it is also likely that different people might be involved in doing the job. In this example, perhaps only one mechanic out of the four employed by the automotive repair business is skilled in running the brake rotor turning machine, although three other mechanics can do all of the other tasks required for this job.

22. Key learning Points

This invention generally relates to automated scheduling of jobs, and more specifically, automatically scheduling appointments for a job based upon attributes of the job, resource availability, and the flow and order of time frames for each service required to do the job.

23. Summary of Invention

The present invention addresses the problems discussed above by providing a method for scheduling appointments to do a job and is applicable to scheduling each of a plurality of different jobs performed by a business. In this method, an operator specifies each service and a time dependency of each service needed to perform the job. In addition, the operator specifies a time availability of the resources that can be used to perform each service needed to perform the job. For example, if the job is the replacement of a vehicle muffler, the resources required to do the job might include a mechanic trained to do muffler replacement work, a hydraulic lift on which the vehicle can be raised, a welding torch, and a tube bending machine for custom forming muffler pipes. The mechanics trained to do one or more of the services required for this job may be available only a portion of the normal business hours each day, so the time availability of each mechanic and of the other resources must be

specified to enable scheduling of appointments to do this job. A software program that carries out the scheduling process automatically creates a plurality of proposals that specify when the job might prospectively be scheduled during a defined time period (a schedule domain), such as the normal hours in which a business is open on a specific day of the week.

24. Number of Claims : 22

25. Patent Status : Published Application

26. How much this invention is related with your IDP/UDP?

< 70 %

27. Do you have any idea to do anything around the said invention to improve it? (Give short note in not more than 500 words)

this patent helped me for the automacy for the appointment scheduling