Automated System For Storing And Sequestering of Automobile Production

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Abstract- *In this real world of the 21st century everything is automated. Automation can be seen and observed in every day to day life. In industries automation is present from since 1947 and will be used till the eternity. So we are going to develop a web based application for procedure of production of Automobiles. Regardless of the automation, some industries still using old passion of the data collection i.e. nothing but they are filling the procedure of the fitment of the vehicle data manually in their patent format of WES and QPS. Each time they write the procedure of each and every model of car, if new model is going to introduce then they have to write a full procedure, the components, parts required, tools to be used, how much man power will required etc. After launching the model needs to change the process to avoid a certain defect, then the change should be manually made again in hard copy no soft copy available, and to do this they have to find the particular paper on which they have written the procedure and make the changes if any. The worst thing of writing these changes manually is that they have to find the particular paper from a heap of approximately 1000 to 1200 pages distributed all over the shop. So we proposed, a web based application to reduce the paper work and properly store and sequestering of their data and so they can use CRUD (Create, Read, Update, and Delete) operation in future if there is any changes to the particular WES or QPS.*

Keywords- WES (WORK ELEMNET SHEET), QPS (QUALITY PROCESS SHEET).

I. INTRODUCTION

In spite of all the automation, they filling the stepwise details of the part to be fitted on a vehicle, in the standard format that is WES by manually .We are going to develop an software to fill the data on the network & store it in soft copy, as well as can take a hard copy if needed, also provide CRUD, by just single click. How, an company in today's modern & automated life style, manufactured there product on a hard copy of paper. While launching the new model near about 1200 WES should write down within the short period of the time span, the components, parts required, tools to be used, how much man power will require, doing all thing of a particular Model. If u wants to change process or

sequence of operation after launching of new product find particular WES from huge WES spread all over the shop. The worst thing of writing these changes manually is that they have to find the particular paper from a heap of approximately 1000 to 1200 pages. So what we are going to do is build a web based application to reduce the paper work and properly store and sequestering of their data.

GOALS AND OBJECTIVES:

In our Automated System for Automobile procedure using web based application serve the following goals.

a) Reliable Retrieval
b) Storage Scalable
c) Uniformity
d) Maintaining integrity and consistency of data

It is necessary to protect user applications and system applications from unauthorized access to improve the security level of the system. Retrieval of data according to using of WES name, Model wise data as well as tools will be segregated.

SCOPE:

Real time data is handled. Many companies still using traditional techniques which are increases unproductive time which in turns cost to the company. Also this help to automobile industry to manage their data properly with security and data available online 24 X 7. It may really fruitful for automobile industries to increase their profit by avoiding the manpower waste on the preparation of WES. As well as maintain the product quality with less amount of time different graphical interface. That makes its interactive for users.

PORPOSE:

It is a convenient and user friendly way to display the entire document which is easily available. Security of the data will be maintained, workload will be reduce. Authentication given to only limited & authorized employees separately for writing & read only authorization respectively.

II. EXISTING SYSTEM

In existing system they are going to prepare the WES during the "pilot Build". Pilot build is the process of assembling the car before take car on the fitment line for large production. During the pilot build expert manpower used from the line to write the WES while doing the fitment, so degree of difficulty is very rare as build only one car, so they have to focus on the one car only.

PROCEDURE FOLLOWED DURING WES PREPRATION:
[1] Take blank print of standard WES format.
[2] Write the fitment details on the format manually.
[3] Take the photos separately, crop the photos & take the print.
[4] Cut the photos with the help scissor and paste those photos on WES sheet where space provided on the WES sheet with the help of the glue.
[5] Segregate all the WES's station wise & line wise accordingly equal distribution of work load.
[6] While following the existing process it consumes a lot of productive time as well as hectic work to be done, which cause unnecessary fatigue to team members as well as burden of completion within short period of time.

FORMATS USED IN EXISTING SYSTEMS: -

Figure 1. FORMAT 01.QPS – QUALITY PROCESS SHEET

Figure 2. FORMAT 02 A) WES – WORK ELEMENT SHEET

Figure 3. FORMAT 02 B) - WES – PART DATA AND REVISION RECORD SHEET

DEMERITES OF EXISTING SYSTEM

• Lots of physical work.
• Unavailability of the soft copy.
• Needs to locate the WES physically to do any changes if want to avoid any defect on the vehicle.
• CRUD operations not possible with feasible manner, every times need to erase older process & write the new one.
• Needs huge documentation & monitoring is difficult.
• More chances of paper data loss

III. PROPOSE SYSTEM

SYSTEM DESCRIPTION:

• Input: Login by authorized user to enter the data for automobile production.

• Output: Easy retrieval of WES of automobile production through the segregation of tools used.

• Process: Data entered in WES and QPS standard format is sequestered and stored in database

• Success Conditions: The authorized user get login successfully and he/she will be able to all the data in the WES and QPS forms. The data get stored in the database and he will be able to retrieve the data anytime from intra-network.

• Failure Conditions: If the authorized user does not change the password monthly than he will not be allowed to login with the old password. And while filling the forms he/she is missing to all the mandatory fields than he/she is unable to save or submit the forms.
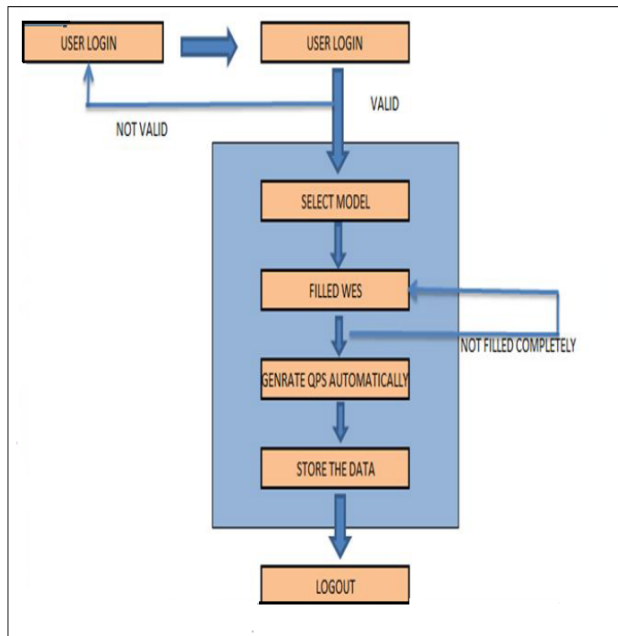

Figure 4. Architecture Diagram

The user will login; if the user is an authorized user then he will get to the next phase of the software that is selecting a model. If the user is not an authorized user he will then have to register and wait till the admin gives authority for the new created user to login. Then after selecting the model in select model phase the associated model will be available to fill the WES. The user has to enter the data in WES completely, if the data is not complete the prompt will appear to fill the data that is mandatory and which has to fill so to avoid the incompleteness.

After filling the entire data QPS will automatically generate. The QPS will be holding all the WES, it like a hierarchy model of data integrated within it. Some of the fields are dependent on WES like displaying the WES name, element description WES no, etc. When the QPS is generated it is implicitly stored on database. This web application is very useful for storing the data online so to access it in another plants of Jaguar and Land Rover plants.

BENEFITS OF PROPOSE SYSTEM:

[1] Ensure commercial success with data management - Continuously growing data stocks are a phenomenon also in the automobile industry, and present a particular challenge for ensuring updated and correct business partner data. This can also be a decisive factor for economic success, e.g., for cooperation with delivery services, or when implementing & handling multiple launches within short period of time.

[2] Optimise business processes, strengthen employee's relationships - In order to keep pace with today's highly dynamic markets, globally orientated companies must permanently optimise their existing processes and systems. Data management solutions from server ensure transparency throughout the entire product & equal in all model. Also it is an user free to handle & fill the data easily

[3] Create a fast & exact overview of the state of your data – Fill data faster as compare to traditional method as we give the form format to fill the WES with sequence of necessary field & after completion we can get the print on A4 standard format. Also photo cropping is easy in the proposed system.

[4] Data storage – data will automatically store line wise.

[5] QPS generation – QPS will generate automatically with the same description in the WES which is not possible in the traditional method.

[6] Exploited new Techniques – New technique should implement so that skill of the employee can increase & also moral boost up to get the task completed with very short period of time.

IV. ALGORITHEM

1. Login With valid ID & password – check user registration if yes allow to CRUD if no send form for authorization to higher authority.
2. Select the proper model from the page
3. Select the line from the listed drop down list
4. Check the QPS is the Wes available for the same fitment
5. If no then click on the NEW WES icon
6. Fill the data in the form format provided to you

7. Save the data
8. Check the QPS which updated properly
9. Take the print if necessary
10. Log out the system
11. Change the password a time span of one month.

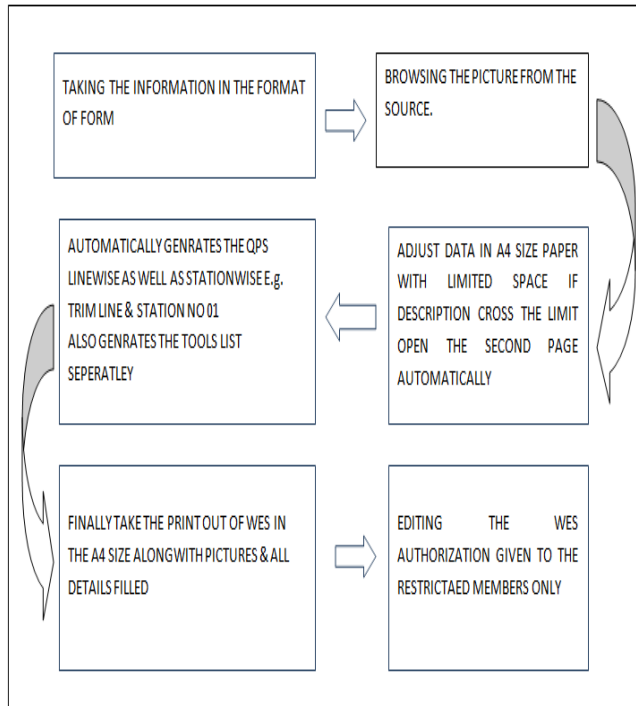**SEQUENCE FLOW OF THE DATA FILLING SYSTEM:**

Figure 5. Conceptual Diagram of Proposed System

V. CONCLUSION

The manual work is automated to automated system so that it will be less time consuming, Error free. The work will become easy and efficient.

VI. ACKNOWLEDGEMENT

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