Implementation Draft Programming Oriented Objects in Parking System Application using Language Programming Java

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ABSTRACT

The development of Information Technology has become increasingly rapid. Many agencies or companies that have used information systems for operations processes that manually become an automated and integrated system. One of which is a parking system. In Indonesia there are still many vehicle day care stations that use a parking system manually. This makes the parking attendant unfamiliar with the price set and the lengths of time parked the vehicle and make it difficult in the process of calculating the report of parked vehicles. For this reason, an integrated parking system is needed so that it can be applied to manual vehicle storage. So in making the parking system uses the concept of programming. The concept of the program to be used is the concept of Object Oriented Programming with the Java programming language and the editor uses Netbeans 8.2 to run the program. The method in conducting this research is to use 2 methods, namely the method for collecting data with the description method and the method for developing a waterfall system. With the parking system will provide convenience for parking users and also make efficient parking attendant performance. So expect speed, and accuracy in collecting vehicle parking at a vehicle storage in Indonesia.

INTRODUCTION

Development A technology is something matter Which very enjoyed the benefits by public wide. Because technology has influence man in all aspect his life. Development of Technology and Information or ICT (Information and Communications Technology) Already proceed in a way significant and always developed to produce results benefit with impact positive for public. Wrong One example application Which most often found in life daily is application program computer in arrange parking in malls, buildings, hotels, etc Lots place other. Almost all over place like mall, building, hotel Which There is in cities big Which There is in Indonesia use application program computer For arrange process parking. Program computer the called with application parking [1,2,3,4,5].

Parking is circumstances no move something vehicle Which nature temporary abandoned by the driver. Legally forbidden parking in middle road kingdom, However parking in side road generally allowed. Parking facilities were built together with most building For facilitate vehicle user building [6,7,8,9,10].

Program application system parking is A application device soft Which used For manage parking transactions Good in door enter nor door go out. Number of transactions or number of vehicles In and out of the parking area is not small so possible happen transaction error Which will harm parking manager with mark rupiah Which No A little [11,12,13].
Parking system is a system device soft which works for make it easier in data collection parking vehicle in a place. Like a shopping places or places that have parking area special. There are lots of public places in Indonesia still use method manually for parking payment. Like in supermarkets or markets local in cities certain, for example is Sardo Supermarket in Malang, Roxy Square in Banyuwangi, And homeland self-service in Poor. Method manually which used that is only with system ticket which given to the vehicle owner when entering the premises vehicle storage. Not to mention parking filled with visitors then security and the effectiveness of this ticket system is definitely reduced and create employees or parking attendants no can work with good and maximum [14, 15, 16, 17, 18].

Therefore, the parking system is automated this very necessary for help work employee in get data which accurate about parking. Objective planning system parking this is for implement draft Object Oriented Programming in an parking system with Java programming language use editor NetBeans 8.2. For make the work of employees or officers easier parking in input data parking and calculation cost parking [19, 20, 21, 22, 23].

**METHOD**

*Method Collection Data*

Method study this use method description. Objective from study descriptive this is for gather fact-actual facts that are happening at this time. According to Sugiyono [24, 25]. State that method Descriptive is a method used to describe or analyze something results study but no used for make conclusion which more wide [26, 27].

The parking system contains many facts which there is in environment we. Moment this still many public places provide space parking or place custody vehicle which still manually that is with ticket. With facts which the can concluded that system data collection parking which automated with computer this still very minimal applied [28, 29].

*Method Development System*

Development system methodology which used is Systems Development Life Cycle (SDLC) which often called with model development water plunge (waterfall). Method waterfall is model development systematic and sequential information systems [30, 31, 32, 33].

The research method used for development device its soft that is use model water plunge (waterfall). Model this is approach device software in a sequential manner starting from analysis, design, coding, testing and stage supporter [34, 35, 36, 37].

Analyze what future needs will be will be needed when creating the program, for example hardware and software which will used. In this case, language is used Java programming with NetBeans 8.2. For database and application design, namely mapping which just column and attribute which used in application as well as analyze class and method in the application. Following is a brief overview of the application design used [38, 39, 40, 41].
Stage coding or implementation the application uses an implementation of OOP or Objected Oriented Programming. Last stage is the application testing stage, where the application the used And checked is Can walk or No, There is error or No. So that the output of the program can be beneficial. Model testing on study This that is use questionnaire in scale likert Which done on 10 person student. Score Which used in range 0 until 4 Which showed on Table 1, as well as aspect evaluation Which evaluated showed on Table 2.

**Table 1. Scale Likert**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Good</td>
<td>5</td>
</tr>
<tr>
<td>Good</td>
<td>4</td>
</tr>
<tr>
<td>Enough</td>
<td>3</td>
</tr>
<tr>
<td>Not Enough</td>
<td>2</td>
</tr>
<tr>
<td>Very Not</td>
<td>1</td>
</tr>
<tr>
<td>Enough</td>
<td></td>
</tr>
</tbody>
</table>

**Table 2. Aspect Evaluation**

<table>
<thead>
<tr>
<th>No</th>
<th>Aspect Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Operational System Application</td>
</tr>
<tr>
<td>2</td>
<td>Users Interfaces Application</td>
</tr>
</tbody>
</table>

**Table 3. Based on Score Interpretation Criteria Intervals Scale Likert**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number 0% - 19.99%</td>
<td>No agree / Bad</td>
</tr>
<tr>
<td>Number 20% - 39.99%</td>
<td>Agree / Disagree Good</td>
</tr>
<tr>
<td>Number 40% - 59.99%</td>
<td>Fair / Neutral</td>
</tr>
<tr>
<td>Number 60% - 79.99%</td>
<td>Agree / Okay</td>
</tr>
<tr>
<td>Number 80% - 100%</td>
<td>Very</td>
</tr>
</tbody>
</table>

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RESULTS AND DISCUSSION

The way Program And Application GUI

On stages First user will faced with the main menu, on the main menu There is an exit menu and a parking menu to get into the core of the application program parking. Then next, from the appearance mainleading in the core view once the Parking button is clicked. So that appear appearance as follows.

Figure 2. Appearance Menu Parking Enter

On appearance This user input data form number plate And type vehicle, motorcycle or even car. So furthermore click save For keep data on the database. Knob reset works For eliminate data Which anytime Wrong input. Users Can direct push reset and re-enter the correct data. So in the table below, it will automatically do so addition data along with number the ticket. So that data automatic stored.

Figure 3. Appearance Menu Parking G

When the vehicle wants to leave and make a payment. So the officer as user direct Can input number platdari the vehicle, then automatically with clicking button search will go out data - data Which required including total cost the parking. So that can direct count total pay in a way efficient in accordance with data Which precise and clear. Then click exit during the process payment has finished, Because signifies that vehicle the Already finished parking in place the. Live data Can updated bada databases . Knob clean up provided to make it easier for users to input data return moment vehicle furthermore want to do process transaction so so on.

Result Testing Application

On study This, done test try user to 10 respondents ie on student Major Technique Informatics in University Country Poor. Data results test try obtained with method spread questionnaire form form question along with scale his assessment. User test results are presented in Table 4.
Table 4. Percentage Test Try Application

<table>
<thead>
<tr>
<th>No</th>
<th>Evaluation</th>
<th>Percentage Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Operational System Application</td>
<td>99%</td>
</tr>
<tr>
<td>2</td>
<td>Users Interfaces Application</td>
<td>99%</td>
</tr>
<tr>
<td></td>
<td>Average Percentage</td>
<td>99%</td>
</tr>
</tbody>
</table>

CONCLUSION

Draft OOP or Objected Oriented Programming in Java has a lot very utility For create A program from these daily life problems. There's nothing wrong with that lots of things can be implemented in everyday life day with this OOP java. Based on test results try user, results satisfaction user based on aspects of system operational assessment and the application user interface is 99% means very good. It can be concluded that the parking management application is Java based This worthy For used. Program system parking This, can applied on public especially vehicle storage places in cities city Indonesia. There is system parking with OOP concept can provides comfort for user parking And make performance officer parking more efficient.

REFERENCES


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Book: Single Author


Book: Two or More Authors


