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INVESTIGATING THE TIME-CONSUMING EFFECT OF DELIVERING TRAIN WARNINGS TO THE TRAIN DRIVER VIA A TELEGRAM BOT

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Abstract: *this article, it is very important to transmit the warnings that occurred in JSC "Uzbekistan railways" in a short period of time for the safety of train traffic, as well as to reduce the time of excessive stopping of trains. It is described how to use Telegram " ЖД _ ПРЕДУПРЕЖДЕНИЕ " bot to deliver warnings to trains to the train driver using information technology and to get information.*
Key words: *Telegram bot, transportation indicators, warning, electricity, fuel, technical condition, freight transportation, freight circulation, electrified section, automated system.*

Warnings to give Bottom to work take down and him to use order

Step 1. This warnings bot is called " JD _ PREDUPREJDENIE " .

this bot username and as " @ vekoto_yangibot " . named _ This bottom to work take down for Telegram messenger of search from the department bottom username according to or bot name according to we look for (Fig. 1).

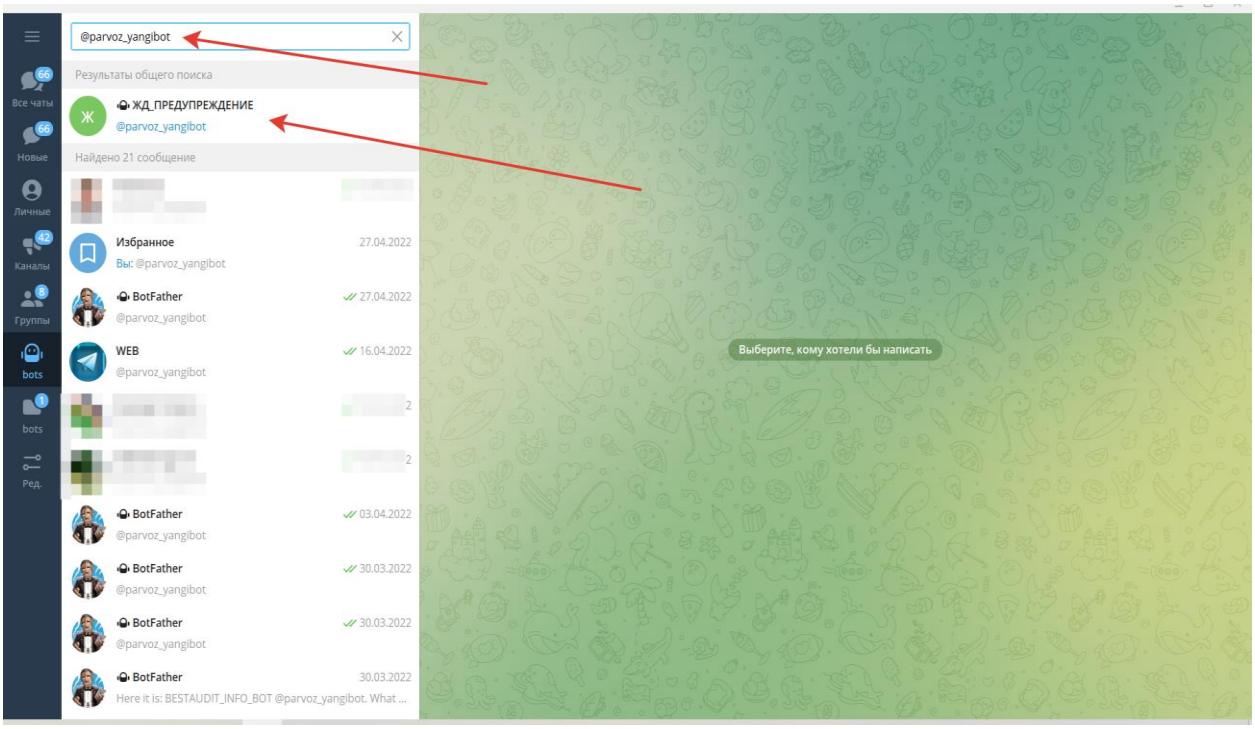

Figure 1. *Search bot*

From here search as a result to us necessary has been JD _ PREDUPREJDENIE bottom we choose and him on top of it click through this bottom to work let's take it down .

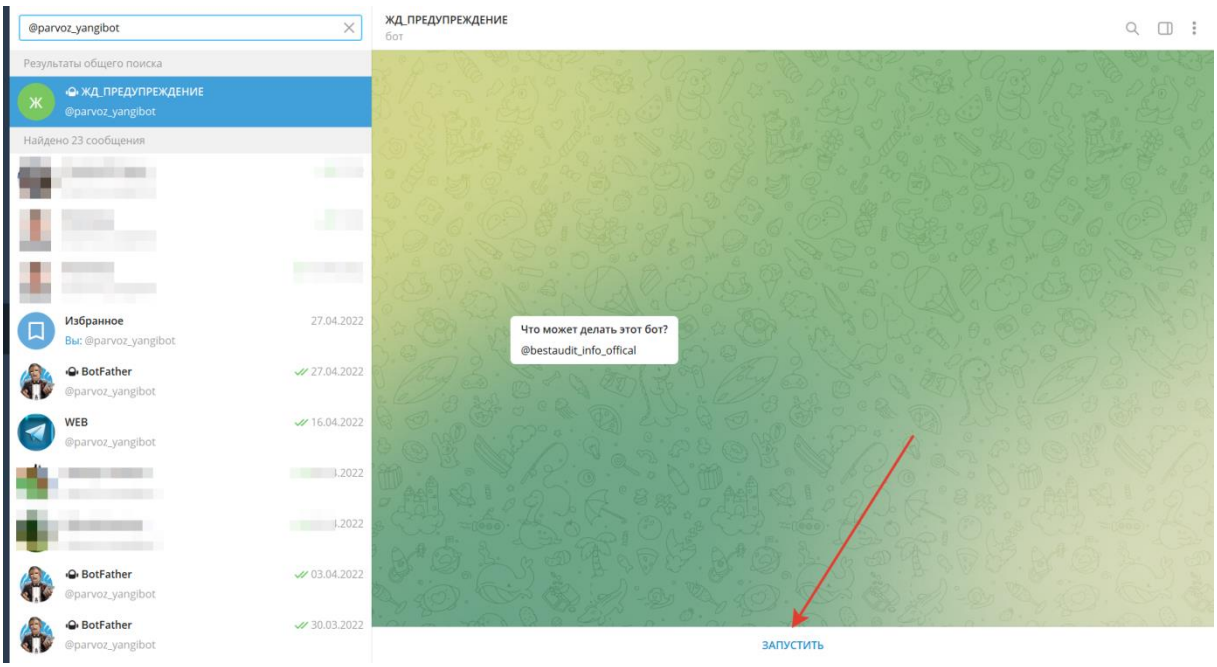

Figure 2. *Botany to work take down*

Step 2. "PEREZAPUSTIT" button pressing To the bog a member we will be and him to work down we can Botany to work take down in the process steps to the sequence action Do the next steps or of the bot sure work provides.

Botany to work down from what we received after to us What is this Telegram bot for made up and then next what affairs what we do need about data gives (Figure 3).

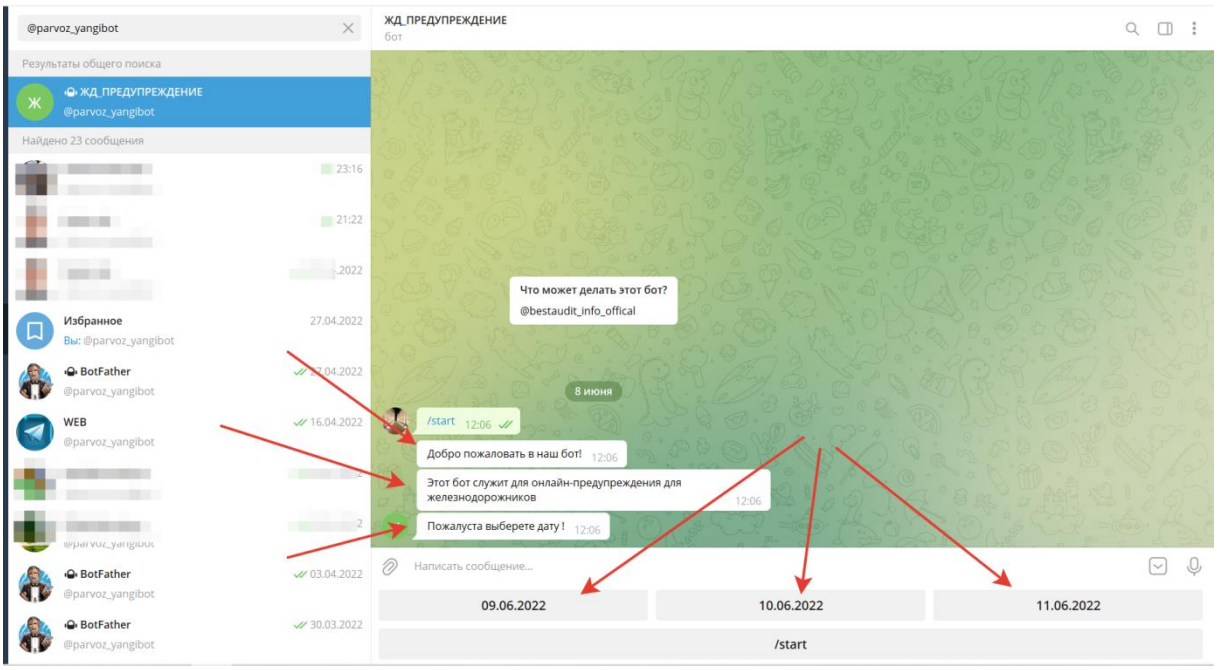

Figure 4. *From bot to us need has been in time warnings get for moon the dates input*

Step 3. Botany to work down from what we received then we bot to ourselves kerala has been date we choose

This Telegram bot trains to be given warnings train machinist locomotive in the cabin sitting out of place get and then actions set get enable gives _

Here : 09.06.2022 ; 10.06.2022 ; 11.06.2022 is it from the button one click through this we are to the date belongs to has been warnings let's see possible (Fig. 4);

/start – button we click through we botni again to work let's take it down. This from doing the goal to "restore" the bot ie bot included new information download is to get This is the button of the bot all in the department is available . Through this bot we are one day previous , current of the day and if data loaded if one day after the data get enable gives _ If we trip bottom updated to work if we drop new included changes and warnings let's see possible it will be while void done warnings fast get enable gives _ (Figure 4).

Next in step we to ourselves necessary has been the date we choose and from the bot in use continue we will

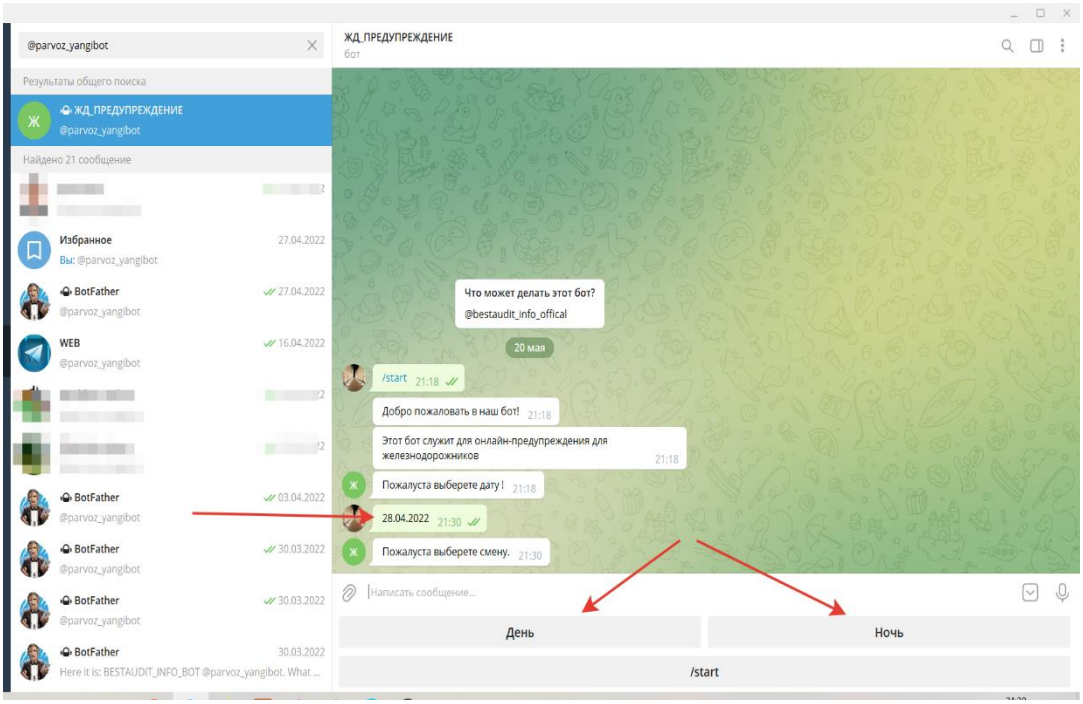

FIGURE 5. *From bot necessary on duty the time choose*

Step 4. We to ourselves necessary has been the day from our choice after that's it of the day which on duty in time warnings that we want to know we choose ie daytime or evening _ (Figure 4.5).

this section is the /start button there is being this mirror botni also through our update possible will be

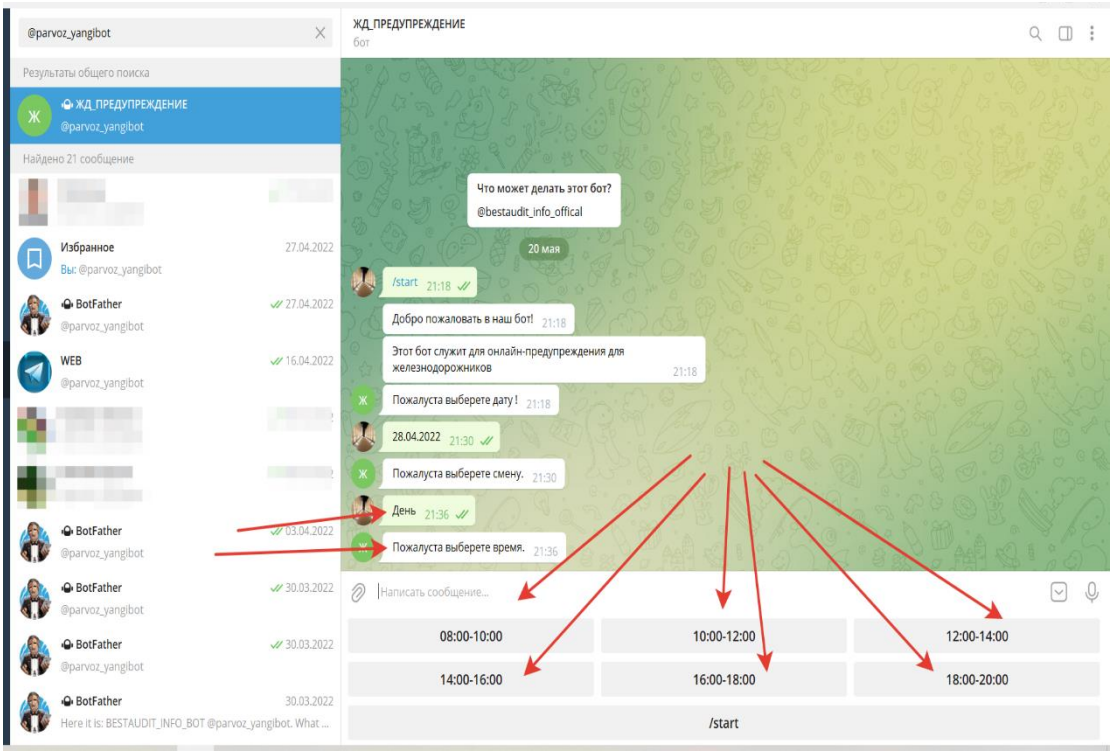

FIGURE 6. *From bot necessary the time choose*

Step 5. To ourselves necessary on duty the time from our choice after that's it on duty in time time range we choose This is a bot each on duty 2 hours _ time from the interval to intervals separated into 6 buttons in total placed (Fig. 6).

this step we are to ourselves necessary has been time range suitable button click through we choose

We entered data the result ie train to the drivers warning DU-61 issued form to get the ground creates _ Figure 7.

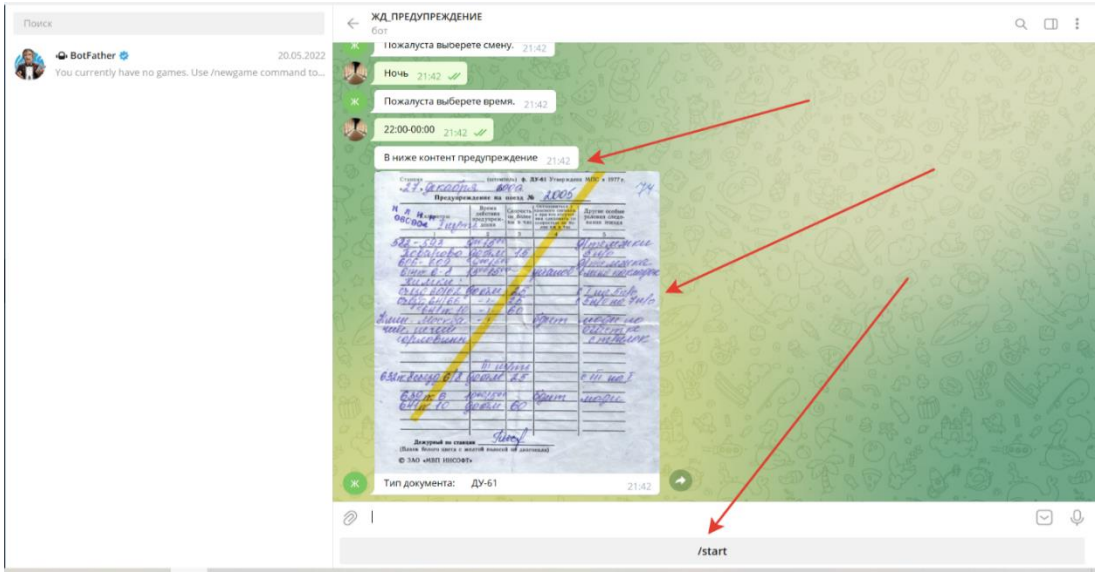

FIGURE 7. *From bot warnings form get*

Step 6. We to ourselves necessary time range from our choice then bot to us that's it time between there is warnings form shows .

It 's here **/start** button we click through we botni again from the beginning to work let's take it down or bottom our update possible will be

So as " JD _ PREDUPREJDENIE " bot through we in 6 steps to ourselves necessary has been in time alerts online _ in advance we get and own our work that's it looking planning , etc warnings locomotive to the typist delivered in giving time spending reduce enable gives _

Caution forms in giving automated and not automated in systems time consumption is presented in figures 8 and 9 .

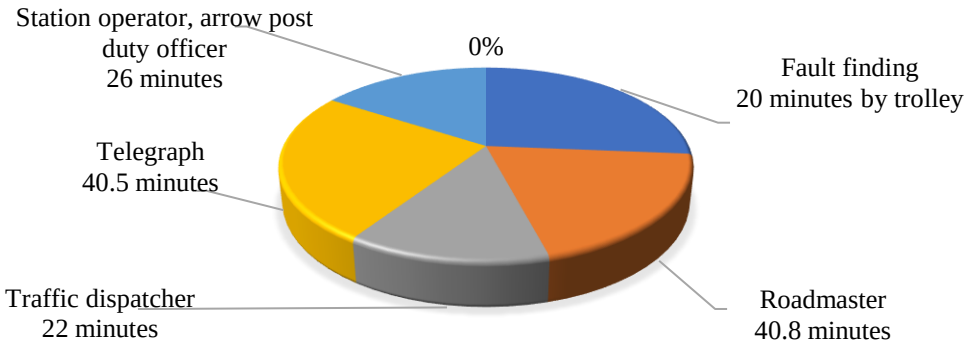

FIGURE 8. *Not automated in the system warnings in giving expendable time standards , minutes*

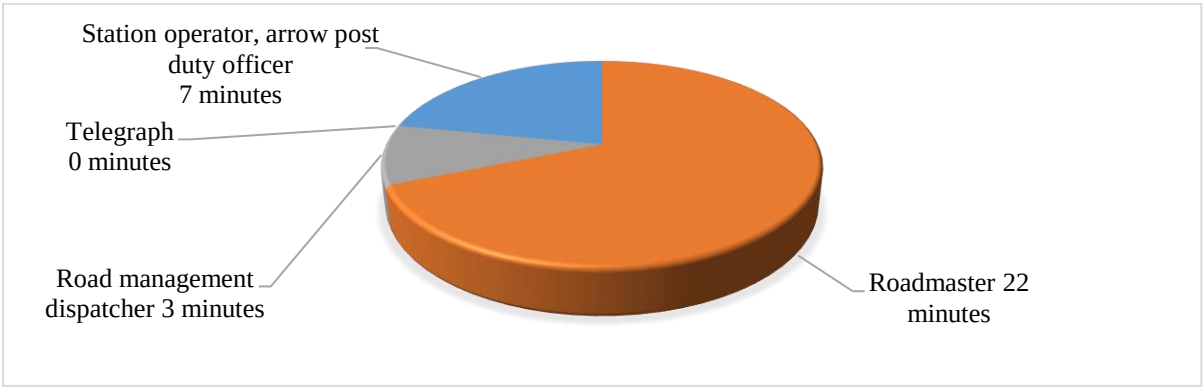

FIGURE 9. *Automated in the system warnings in giving expendable time standards , minutes*

Take it went studies that's it showed that "Uzbekiston temir yollari" JSC allows to have many electronic data warehouses by sending alerts in an automated manner. Along with this, it has many advantages in controlling employees online. The online document database provides us with many conveniences and is very important in maintaining the history of the work. By creating an online document database, we can compete with other state railways, as well as enable safe organization of train movement in railway transport.

In order to deliver the warnings to the trains to the train driver accurately and in a short time, the integration of all the warnings into a single system will serve to apply information technologies in this process and to make the entire process electronic.

Automatic transmission of warnings allows you to quickly carry out work in any weather conditions.

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