Forbidden Application of Program C++

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ABSTRACT

This scientific article is a practical lesson in Theoretical Mechanics and Resistance to Materials. will be studied.

KEYWORDS: *Forced Vibration, Material Point, Microphone Aperture, Reflective Power, Free Harmonic Vibration Motion, Mobile Application, C ++ Application, Operators, Variables and Variables, Characters, Algorithm, Application, Innovation.*

The role of modern advanced information technologies in the construction of a new Uzbekistan is invaluable Sh. Mirziyoyev clearly described it in the Resolution of the President of the Republic of Uzbekistan No. PP-4996 of February 17, 2021. The use of information technology in any field can improve the quality of work, facilitate mental work and save money. This is in paragraph 15 of Resolution PQ-4996 of 17 February 2021; The Higher Attestation Commission under the Cabinet of Ministers, the Ministry of Innovative Development, the Ministry of Higher and Secondary Special Education, the Ministry of Information Technologies and Communications development of artificial intelligence and its use in the activities of government agencies and other organizations. In this article, I will focus on automating the solution of the problem of "forced oscillating motion of a material point (linear)" by creating an algorithm for a type of problem in the mobile application of C ++.Forced oscillation is a periodic oscillation in an oscillating system under the influence of a changing external force. Often, the forced oscillation of a system is due to the presence of another forced oscillating system. For example, the forced vibration of the microphone diaphragm depends on the vibration of the sound source. The system is forced to oscillate at the expense of energy transmitted from the forced oscillating system. In most cases, a system with forced oscillations does not transfer most of its energy to the forced oscillating system, or even if it does, it is less than the energy of the forced oscillating system. In such cases, it is assumed that the system of forced oscillations exerts a periodic force on the system of forced oscillations. If a system oscillates linearly, its Forced oscillation frequency is equal to that frequency of the periodic force. When the frequency of the forced oscillating periodic force is equal to the frequency of the free oscillation of the system, a resonance event is observed in the system. The laws of forced oscillations are widely used in the calculation of oscillating systems. Forced oscillating motion of a material point. We have seen that when a material point is excited from its equilibrium position and left alone, free harmonic oscillations move as a result of the repulsive force. If the force disturbing the equilibrium of a material point does not stop its periodic action, the material point will be forced to oscillate. We use systematic programs in the field of "Information Technology in Construction". In C ++, we practiced automatic solutions to engineering problems in various areas by developing algorithms. An algorithm to solve this problem of theoretical mechanics was developed and included in the program. For example, a load of mass 25 kg is suspended on a spring of 800 N / m and oscillates freely in a

vertical straight line. Determine the acceleration of the load at a distance of 5 cm from the center of gravity of the load. This process was implemented in Windows using the C ++ program and the mobile application "C ++ Coding".

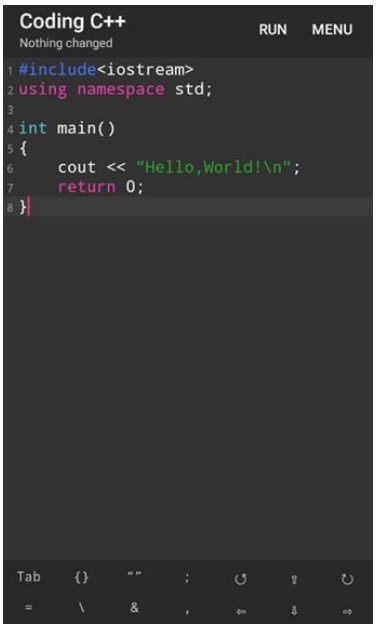


Figure 1 . Shows the desktop of C ++ Coding.

The structure of the C ++ Coding window: The window is black, the columns are automatically numbered with whole numbers, and the main operators are entered. The commands to be executed in the program are included in the "RUN" and "MENU" sections. In the mobile application, the main commands (operators) are entered. The program covers the concepts of basic operators, symbols, variables and variables.

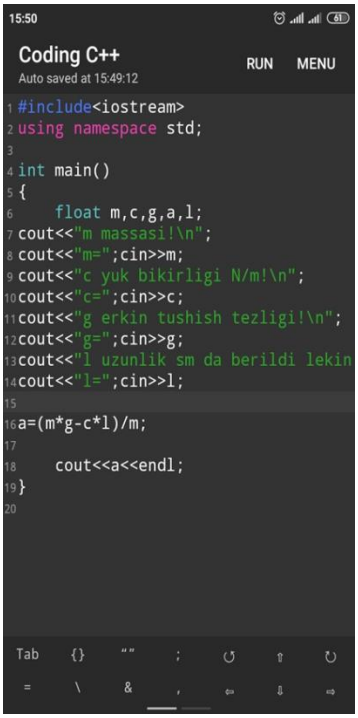
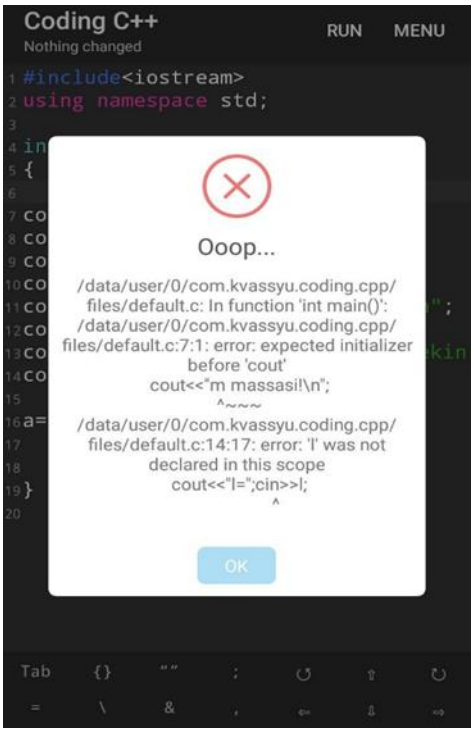


Figure 2

In Figure 2, the C ++ Coding mobile application has a program for the above problem, where float, cout, cin - operators, m, c, g, a, l do not change, /, <<, >>,; , {,} - characters involved. The algorithm was developed and included in the program. After entering the algorithm, press the RUN button, if the algorithm is entered correctly, you will be allowed to go to the second window. Otherwise, the program will report an error (Figure 3) and will not allow you to go to the second window.



In Figure 3, after correcting the errors, the second window is moved. Values corresponding to the specified variable are given. The end result is automatically calculated by the program itself

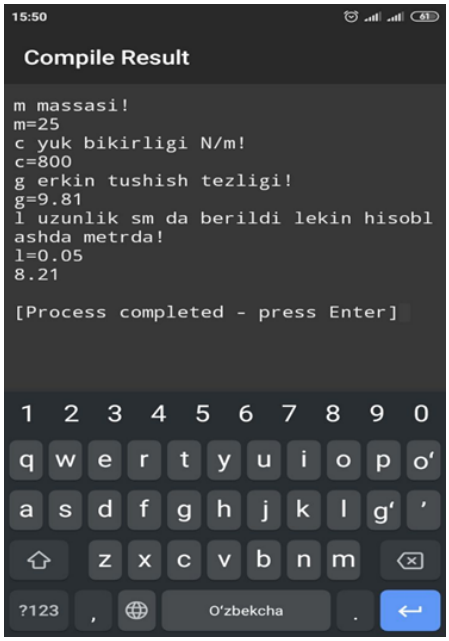


Figure 4.

Figure 4 shows the result. An issue of this type can be solved indefinitely through this program. Only the value changes. Using the mobile app is very user-friendly. It does not choose a place, time,

conditions, does not use mental energy, saves money. This program will make the user's job easier if it is widely used in practical calculations in mathematics, physics, chemistry and other sciencesO'zbekiston Res'ublikasi 'rezidentining 2017 year 7 feburary 'F-4947-number «O'zbekiston Res'ublikasini yanada rivojlantirish bo'yicha Harakatlar strategiyasi to'g'risida»gi decree.

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