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A Safe Transaction using E Coupon Service Built on Blockchain

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Abstract: *Electronic coupon (e-coupon), which is convenient and portable, has becoming increasingly common as e-commerce gains popularity. The majority of e-coupon services manage the e- coupon data on a single server. The centralised nature of e- coupon services, however, makes them frequently susceptible to security problems. It becomes challenging to match the user and the owner of the e-coupon, for instance, when the e-coupon information kept on a centralised e-coupon server is falsified..It is possible to repeatedly use coupons and expired online coupons. is employable (i.e., double spending).We suggest a new e-coupon service to address this issue, enhancing the service's security by utilising the blockchain technology. First, we create a server that will operate the e-coupon service and interact with the blockchain system..Second, to provide e-coupon business logic and the integrity of e-coupon data, we construct a smart contract in a blockchain system. On an Ethereum-based blockchain system, we have developed the suggested service. According to experimental findings, our proposed service offers a significant security upgrade over the current e-coupon service while incurring only a little performance penalty.*

Keywords: E-Coupon, Blockchain, Smart Contract

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