A diagram of a project

Description automatically generated with medium confidence

Sequence diagram trên mô tả quá trình sinh viên mua thêm trang in thông qua hệ thống dịch vụ in thông minh (SSPS) và hệ thống thanh toán. Quy trình hoạt động cụ thể như sau:

1. **Đăng nhập**: Sinh viên đầu tiên đăng nhập vào hệ thống SSPS. Nếu sinh viên chưa có tài khoản, họ sẽ được yêu cầu đăng ký tài khoản mới và hệ thống xác nhận đăng ký thành công trước khi tiếp tục.
2. **Chọn mua trang in**: Sau khi đăng nhập thành công, sinh viên tiến hành lựa chọn dịch vụ mua thêm trang in, chọn loại giấy và số lượng trang cần in.
3. **Chọn hệ thống thanh toán**: Sinh viên chọn hệ thống thanh toán để tiếp tục quá trình mua.
4. **Liên kết hệ thống thanh toán**: Hệ thống SSPS sẽ gửi yêu cầu xác thực tài khoản tới hệ thống thanh toán, và hệ thống thanh toán sẽ thực hiện kiểm tra số dư của sinh viên.
5. **Xác thực thanh toán**: Nếu số dư tài khoản đủ, quá trình xác thực thanh toán sẽ diễn ra và sinh viên nhận được xác nhận thành công.

Nếu số dư không đủ, hệ thống sẽ thông báo cho sinh viên biết và hiển thị lựa chọn nạp thêm tiền. Nếu sinh viên chọn nạp thêm tiền, họ sẽ được nạp vào số tiền tương ứng còn thiếu. Nếu không muốn tiếp tục, sinh viên có thể chọn hủy giao dịch.

1. **Cập nhật trang in**: Sau khi thanh toán thành công, hệ thống sẽ cập nhật số lượng trang in cho sinh viên và kết thúc quy trình.

[Sequence\_Diagram\_Drawio\_Muathemtrangin](https://viewer.diagrams.net/?tags=%7B%7D&lightbox=1&highlight=0000ff&edit=_blank&layers=1&nav=1&title=activitydiagrammuathemtrangin.drawio&page-id=d5exvy9il5vfvj8CRe8R#R%3Cmxfile%20pages%3D%222%22%3E%3Cdiagram%20name%3D%22Page-1%22%20id%3D%22nkGrJ1XBS3R-_txGEOIl%22%3E7V1bc5s4FP41PCZjEBj8aOw07Wx2mta726QvHWzLtjYYvFhu7Pz6lUDchAwksUEk6WQaJG7iXHS%2Bc5GigNF6fx04m9Wf%2Fhy6itab7xUwVjRN1bUB%2BUV7DlHPoGdGHcsAzdlFaccEPUHW2WO9OzSH29yF2PddjDb5zpnveXCGc31OEPiP%2BcsWvpt%2F68ZZwkLHZOa4xd4faI5XUa%2BlmWn%2FZ4iWq%2FjNap998NqJL2Zfsl05c%2F8x0wWuFDAKfB9HR%2Bv9CLqUeDFdovs%2BHTmbDCyAHq5zw9MX4H6bfhn%2BrYEnDWx%2BPX3FPy9A9JTfjrtjH6xofZc8z97QIeMDo0P%2Fvx0dp712giXyFDDsbfZJ8wL7G9Klh10Y7vGF46IlvWpGxgYD0ps%2BgRwt2e%2FwPdO4Y4K8FR0KUkZAGQ69%2BALyRVP%2BJtK3Sfu03FC13zDAiHBwGA1iHI7OZkMau3BB7%2FLJVQs35McCEToBe4XX5NdYJYePK4ThZOPM6BMfiWAnr8mSm3GAvg7uM12M%2FNfQX0McHMgl7CxgksBUwWTNx1SuErFfZWRqEN%2FnMFleJk9O2U0OGMefwf2%2BPNz%2FrFypim0rlkk1fMVaA9Vbhm0nlA3sh7KhvkHZ0PRK4VAHjQqHKY9wTCa3k7fHcr16PlCNRlluCVjOUdNFHjmytzjwHxKLSIlEyTbyXZ%2BwdOz54UUcjXlGrNF87oYPI6RF3vIvypjxhZr23IQ3jkHa852RgXYFPnawMw1H1iNt15lC99bfIox8%2Bvwgutbe%2BMjDIakMWzHGYU%2BAR75HPsJBIfugs8WPcIuTL4u%2FhNgkGCB8Iobn%2BT0o8tvQBfy2zsTtQTW3yVMI0IJ5dSBAZkPPb7ET4AnhAeTYrxBLF%2F4rkJOcWSzYmRMQVNXyFFXVIkmBgKJnU6D4%2FaU0nROAyZpEDlf%2B0vcc9yrtzdKa15mpj7G%2FJiegNx9SeEsfsoFe1MPgs1VK98DfeXM4Z0pDiB8c7mjj0oib99lz432udWCto9zb%2BrtgBqvFjgjPEuIyWjLSUXqVCkMAXQej33nALmItu%2FWWzgcZIQJGXohMTjqikbK7OAFJhvEKmdGKMjPSFTI7kP8tEAIgLwJEQ2U43hQEKmUolRgnmDExUHtHbFdGvuIpOmONX62VA%2B3yCEUzamkZTaql9QItzOtJes2NH9opSr1%2FIcYHRm1nR9BpjrZwj%2FBd5vg%2B1TLSSvWKNg6Zxi2xOOS7KTs4Fc0paKqvJ1dRFdTV0f6pdfR1fBa5sxzj88hFE5u29X5JwxmXFBLOVsTMXc7hDG1DXHEuOKhqea1J1CHrHzZqzPQ2tSbVlPvMmSNa80IjFrZ4dXuF2mh11QbIpTaCOABvgR5Cz3tMvy486iHaufJjuwQ86e2S3s%2BjRZGCqb0z2aXFDIBpT38cf93fTH59Mw4zfIih0NtVsFfokgAmCmmoyqVKRadqFAezrDHRkd5650QRrjDKuabHgROqGJJfhQrQDhgtQzsNdEaHSqFdU3oVI4hqGzWQSrG0Gp51d6CdIPTTKLRLxOVdac2p4V5dLylmrSyq9JKYVLuwQ32e53tqRvc7ymi9OGca9oxAj75i9ygMmVEUYoMyVG%2BMC9JC8zgVWONorD%2BAW%2FSUCdoXg%2FNUdLYM5hQCmSyzIEg2nGKa5gL0yZycdRAajSfHdoPj4AfXMlwzOKb1i0wTJU7P5tSpLU%2BvmiRuXZm3VunV6W1NpOJRt%2BxkmG%2BBpYZcLK12J%2FIMrPC2a%2Bc%2Fp5ahGyfKf3L2Su%2FVLBpRzzX3FQEHF%2F1wEyOlUqO1RHHTOJTQX47gB09tXRD6aNLQFLEBR%2BxtUkVFKR%2BhPtY1DKO6khNcNSSjeIfc5ubNgF7TDrTnJJWO%2B01ZAqN1SxD7zJ1SFa2n5wMNvd75Qg1lBrQ66yEZQDY7yG1zAFrmttFNbmutFgY8q5zmnKUzpdat2gxqcvG0mF%2Fh0OTqmRX6koNLi09lGgJ02Ww5QCwSGR7cReScZUluh805I3hUl0GPJSe4ZpryUbw7dqvp7LGYXoKUl%2FjC1goDH%2F%2B5An0NjB5%2BWNr9w6%2Bv3%2Bfw7qJdMPocg%2FUMNqsSsFkuX07rcv0n4BYz9AWLGc5VJCCmptGZybHxgoBS%2B12tNq3Vf5ZO1hm1%2BQPFaA%2BwEjU%2Bnjhn8cTuwY6%2B1TrsECy0M%2BxVEpvdhPHaBG6%2Fo2SuZnK8EkDEfpOTIOhOEbwUCBHUTQcCufxf0OoSoZNBxGcWSjXBZ1MuPtdI%2FHYGIpqC2fFcEFHoVxVp9xEI5Oa3rIIIadjaAobSYWf046%2FOxfaKmM8SJcQaxXygOwsVJPGmBFW3pVO6LBokqNlk%2B5Qs%2FHDheXHvFHriIkLcQ3KBFW6XItgYxbDFPhj56TtrqlnRdfTZ%2FOo8QYyeOhbJDirR4I5sovJW%2FQ0A%2BDSAKdqGpdG4Czi%2BLVNdARq8XICYOHxITw3pUQt2xmyyZLwUb2ek5yZJHIU1%2F%2Fm0npcU5G2U3LpEyW282b%2FkVlWJ0LCqJhxqpiavGBD7cCPLpLXuMl9dLjfSaNXz6WBYqDafJQNzNTbJkjZcwC87tRrcUUTM3HZnx%2B75QLExr%2FaBWlutLZ4ePyrEKme46gUzcmUJ43FnpsLrOGM1RuEsE0LHHcWYMag0dwWImXNAcJJnpGElth5Vi%2FyNeG2I%2FWknPRotVJMNBNn7ZgNOunD170MI8G092lYuw5h3lGTklpVYAlY1umJUFzj8hv1OmaNqhditICIj2hf3fPwRbYXMm7dkp9Sq2We7ifapX6A9ncDOsPpDhPMajUHoNTYSjoHxbu2OIZWvQzXt8kibVu9HRnRCn7WNHnaDFpBtUnwKyvII2ihQVoSgtRNQ9svPHbwztfuDat74aLLaOTsvThZ1CFdxoQTzfMDKqFu1KFnpgVGsWrxeUUCV2fW1EKmTHA8VM3CNAiJhorU7lTznDM%2BU5aArc9WteSRlo84uWcluk5zVH8w7HqLl0F3aiU83eI%2Bj0RR3mXS8eEN5uoN5m9vJ6wMORwkKRc%2BFo4QEFeBOzoP7qBklZ%2FuFCl%2BhKpyGc6SZ%2Fs2maA%2F49C9fgav%2FAQ%3D%3D%3C%2Fdiagram%3E%3Cdiagram%20id%3D%22d5exvy9il5vfvj8CRe8R%22%20name%3D%22Page-2%22%3E7V3Zdps4GH4aLuPDvlxiO6kzTSZpnU7b3MzBtmKTYHABb336kdi1ADYBJ5m6J00tIWRJ%2F6d%2Fl8pJg%2BXuk2%2BtFrfeDDicyM92nDTkRFHQBR3%2Bg2r2SY2gKHHN3LdnSV1eMbZ%2Fg6SST2rX9gwEWMPQ85zQXuGVU891wTTE6izf97Z4syfPwb91Zc0BVTGeWg5d%2B92ehYu4Vhe1vH4E7Pki%2FWZBNeInSyttnMwkWFgzb1uoki45aeB7Xhh%2FWu4GwEGrl65L%2FN5VydNsYD5ww0NeuNe%2BXtw%2BLoX5OBjf9zePw2F4fZH0srGcdTLhse0uUI3NDSTONN1k8OE%2BXRE4jxX6uF465jT0fE7qb4Af2nDNbqwJcO69wA5tz4VNJl4YestCA9Ox5%2BhB6K1g7SJcOrAgwI%2F0ZNKRwTfBrlCVTO4T8JYg9PewSfpUShZ6jyNom5MtbbEoUExN6qwEKPOs43wt4YdkOY9YWpFe2vH9mFrOwiJsF3YIxitrih5t4YZqZ2FEHV8YmV4YQWCsjNLVykjUyoy4S4Hr9zldQ%2Ft7kZQMwZ1HZSuCZOhFkBRoSHa%2FhopUv4biKddQEKhVADPIuZKi54cLb%2B65lnOZ1%2FZ9b%2B3OAOqWh6W8zY2H9mO0fs8gDPcJG7bWcMmxbQp2dvgDvd5TktLPwpPhLuk5KuzTgjszESOGRddzQVxzZaPpRs9nVrCIxhR148LFib%2FB4JW0IvqSHs9LaUX%2BTVFpXyzdA9%2BGawz8pLKU%2BoG39qegHqeh5c9B8up2pPbVT1cvrnED7n4bD33%2F%2B%2BRCjtuh9a%2FEkg8cK7Q3uGRhISN59d6z4ZBzDOpGT1UJHkfgK55T8mJRGJB9GSSzJPlgPGuqpwis2ZwOwu%2FV9l75fqNc302Mr3awdecDQWYInqpdvULDiAam9OEPHOqg%2BFfhFPjCIHkiFJ5c5I%2BE0pcE5kvwB35xAUz5filArO%2BtQ8d2wSDTPxDm4sUbI0kZxKLyxn4CqF00GT%2BEzYPQt%2BwIksAKwi0I4Me%2BC7aFDTvkNAhf9dca6Qj96drfwI2SlTnJRKPNK9LtjbfQhi3JVxmHjMFggQwOCCHaAg9kYoiWsNxA5uC44G9dimSHG8sSkzOHqyqAkQpKprkUuNfE8aYvOR1iSuMstXSZa3lDYRVTcf1KdiEoxBYXG%2FIKiVSsyI46ZhUGReafsW66Rnp%2FSl8NlSL6CwX6v0Qth4iLR594G1UuvPQtqVKZOAQV3gq4tBRLLRm9K7y8EhwUTfWG4KBQRnb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