**Object Oriented Software Engineering (Csc392)**



**University Events Management System**

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**Group Members:**

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## **Use Cases Distribution**

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| S# | Group Member | Assigned Use Cases |
| 1 | Sayed Mujtaba  SP21-BSE-091 | UC 1: Sign in  UC 2: Logout  UC 3: Select Events  UC 4: Register for Events  UC 5: View upcoming Events  UC 6: View today / past events |

* 1. **Fully Dressed of Use Case:**

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| **Use case section** | Comment |
| **Use case** | Log in |
| **Use case ID** | SP21-BSE-091 |
| **Scope** | University Event Management System |
| **Level** | Teacher, Student and Admin goal |
| **Primary Actor** | Teacher and Student |
| **Stack Holders and interests** | **Teacher**: Teacher can have access to the events which are taking place or upcoming events.  **Student:** Student will have access to the system in order to register himself/herself for an event.  **Admin:** Admin can log in to system in order to view the participation of student and teacher in the events. |
| **Pre-Conditions** | * The student and teacher must be the part of the university in order to login in the system. * The student, teacher and admin must register themselves in order to login in the system. |
| **Success guarantee**  **(Post Conditions)** | * The teacher will see their profile and can be able to have access to the events after login to the system |
| **Main Success scenario** | * The student, teacher and admin must register themselves in order to log in the system. * After login they are able to participate in an event or upcoming event. * Admin can see the detail of student and teacher that in which event they are participating. * Student and teacher can see the events that in which time they are taking place. |
| **Extensions** | * At any time, the system fails * If the system fails the student, teacher will be able to restart the System * If the student, teacher or admin internet is not stabled then he/she can’t log in to system |
| **Special Requirements** | * User-friendly interface: The login page should have a user-friendly interface that is easy to use and navigate. * Error messages: The system should provide clear error messages to users in case of an invalid login attempt, to help them understand why their login failed and how to correct the issue. * Password visibility: The system should provide an option for users to show or hide their password while typing, to prevent mistakes when entering their login credentials. |
| **Technology and data variation list** | * Student, teacher and admin can override the operation by clicking on the back button. * After clicking on back button student, teacher and admin can be able to do another operation. * The student, teacher can be able to see the login page clearly. It means that the interface should be user-friendly. |
| **Frequency of occurrence** | * This can occur multiple times. |
| **miscellaneous** | * Are the student, teacher and admin able to register? * Are the student, teacher and admin entered valid credentials? |

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| **Use case section** | Comment |
| **Use case** | Log out |
| **Use case ID** | SP21-BSE-091 |
| **Scope** | University Event Management System |
| **Level** | Teacher, Student and Admin goal |
| **Primary Actor** | Teacher and Student |
| **Stack Holders and interests** | **Teacher**: Teacher can be able to log out from the system if their work is finished.  **Student:** Student will be able to log out from the system after seeing the upcoming events, current events, or participating the event.  **Admin:** Admin can log out from the system after seeing the detail of student and teacher. |
| **Pre-Conditions** | * The student, teacher and admin must have stable internet connection. * The student, teacher and admin must login to the system in order to log out from the system. |
| **Success guarantee**  **(Post Conditions)** | * The student, teacher and admin will be at the login page after log out. |
| **Main Success scenario** | * The student, teacher and admin must have stable internet connection. * The student, teacher and admin must be login to the system in order to log out from the system * After log out the student, teacher and admin should be at the log in page |
| **Extensions** | * At any time, the system fails * If the system fails the student, teacher will be able to restart the System * If the student, teacher or admin internet is not stabled then he/she can’t log in to system |
| **Special Requirements** | * Clear confirmation message: The system should display a clear confirmation message when the user logs out, to ensure that the student, teacher and admin is aware that they have successfully logged out. * Automatic log out: The system should log out the user automatically after a certain period of inactivity, to prevent unauthorized access to the user's account. * Redirect to login page: The system should redirect the student teacher and admin to the login page upon logout, to prevent unauthorized access to the system. |
| **Technology and data variation list** | * Student, teacher and admin can override the operation by clicking on the back button. * After clicking on back button student, teacher and admin can be able to do another operation. * The student, teacher can be able to see the log out page clearly. It means that the interface should be user-friendly. |
| **Frequency of occurrence** | * This can occur multiple times. |
| **miscellaneous** | * Are the student, teacher and admin login to system? * Are the student, teacher and admin on the login page after log out? |

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| **Use case section** | Comment |
| **Use case** | Select Event |
| **Use case ID** | SP21-BSE-091 |
| **Scope** | University Event Management System |
| **Level** | Student goal |
| **Primary Actor** | Student |
| **Stack Holders and interests** | **Students:** The primary stakeholder of this functionality, students have a strong interest in being able to easily and efficiently browse and select events that are relevant to their interests and schedules.  **University event organizers**: University event organizers have an interest in ensuring that the event selection process is streamlined and efficient, so that students can easily find and sign up for events.  **Faculty and staff:** Faculty and staff members may have an interest in being able to view which students have signed up for certain events, so that they can encourage student participation or plan their own events accordingly.  **University administration:** The university administration may have an interest in being able to track student participation in events, which can be used for metrics on student engagement and campus life.  **Event sponsors:** Event sponsors may have an interest in being able to see how many students have signed up for their event, as this can be an indicator of the event's success and impact. |
| **Pre-Conditions** | * The student must be currently enrolled in the university. * The student must be logged into the event management system. * The event must be open and available for registration. * The event must be open only to students, and not to other types of attendees such as faculty or alumni. * The student must have the necessary permissions to sign up for events, which may depend on their academic standing or other factors. * The student must have the necessary information and details about the event, such as the date, time, location, and any required materials or equipment. |
| **Success guarantee**  **(Post Conditions)** | * The student must be successfully selected to the particular event. |
| **Main Success scenario** | * The student must be currently enrolled in the university. * The student must be logged into the event management system. * The event must be open and available for registration. * The event must be open only to students, and not to other types of attendees such as faculty or alumni. * The student must have the necessary permissions to sign up for events, which may depend on their academic standing or other factors. * The student must have the necessary information and details about the event, such as the date, time, location, and any required materials or equipment. * The student must be successfully selected to the particular event after selecting the event. |
| **Extensions** | * At any time, the system fails * If the system fails the student, teacher will be able to restart the System * If the student, teacher or admin internet is not stabled then he/she can’t select an event. |
| **Special Requirements** | * Student eligibility verification: The system should verify that the student is currently enrolled in the university before allowing them to sign up for events. * Event availability: The system should only allow students to sign up for events that are currently open and available for registration. * Event restrictions: The system should prevent students who are not eligible for a particular event from signing up, based on restrictions such as academic standing or prerequisites. * Event capacity management: The system should track the number of available slots for each event and prevent over-registration beyond the capacity of the event. * Real-time updates: The system should provide real-time updates to students on the availability of events and any changes in event schedules or locations. |
| **Technology and data variation list** | * Social Media Integration: Social media integration can be used to promote events and increase engagement, with features like event sharing, commenting, and discussion forums. * Data Analytics: Data analytics tools can be used to analyze event attendance data, providing insights into student engagement and the effectiveness of different event types and formats. |
| **Frequency of occurrence** | * This can occur single for each event. |
| **miscellaneous** | * Is the student eligible to the event? * Is the event open for registration? |

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| **Use case section** | Comment |
| **Use case** | Registration for Event |
| **Use case ID** | SP21-BSE-091 |
| **Scope** | University Event Management System |
| **Level** | Student goal |
| **Primary Actor** | Student |
| **Stack Holders and interests** | **Students**: Interested in a user-friendly and efficient registration system that allows them to easily register for the event without any delays.  **Event organizers**: Interested in a system that is easy to use and allows them to manage the registration process smoothly, with features such as automated confirmation emails and real-time updates on registration numbers.  **University administration**: Interested in a system that complies with university policies and regulations and allows them to monitor the event and ensure that it is well-organized and attended. |
| **Pre-Conditions** | * The event organizers have set up an event page with all the necessary details about the event, such as the date, time, location, and description. * The event page is available for students to register. * The university administration has approved the event and provided guidelines and regulations that the event must follow. * The event registration system is fully functional, secure, and able to handle the expected volume of registrations. * The system is accessible to all eligible students who wish to register for the event. * There are no technical or other barriers that might prevent students from registering for the event. |
| **Success guarantee**  **(Post Conditions)** | * The student’s detail should be automatically sent to the event organizers and university administration after registering for the particular event. |
| **Main Success scenario** | * Students navigate to the event page on the university's event management system. * They find the event that they want to register for and click on the registration button. * The system prompts the students to log in with their university email and password to verify their student status. * Once they are verified, the system takes them to the registration page where they are asked to provide their name, contact information, and any other required details. * The system verifies the information provided by the student and sends them a confirmation email with their registration details. * The event organizers are automatically notified of the registration and can monitor the registration numbers in real-time. * On the day of the event, the student arrives at the designated location and presents their registration confirmation email to gain entry to the event. |
| **Extensions** | * In the event of technical issues or errors, the system provides clear error messages and guidance to help the student resolve the issue and complete their registration successfully. * If the event has limited capacity, the system informs the student that the event is full and offers to place them on a waiting list or suggest alternative events they might be interested in attending. * If the event organizers need to update any details about the event, such as the time or location, they can do so through the system and the registered students are automatically notified of the change. * If a registered student needs to cancel their registration, they can do so through the system and the system automatically updates the registration numbers and notifies the event organizers. |
| **Special Requirements** | * Accessibility: The system should be designed to be accessible to students with disabilities, such as visual or hearing impairments, to ensure that all students can register for the event. * Security: The system should have robust security features, such as encryption and authentication, to ensure that the registration data is secure and protected from unauthorized access or breaches. * Scalability: The system should be able to handle a high volume of registrations, particularly if the event is popular or if there is a time-limited registration period. * Mobile responsiveness: The system should be designed to be mobile-responsive, to ensure that students can register for the event using their mobile devices, such as smartphones or tablets. |
| **Technology and data variation list** | * Programming language java will be used in the system. * Database management systems: MySQL * Payment gateways: Jazz cash easy paisa |
| **Frequency of occurrence** | * This can occur single for each event. |
| **miscellaneous** | * Is the student eligible to the event? * Is the event open for registration? |

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| **Use case section** | Comment |
| **Use case** | View upcoming events |
| **Use case ID** | SP21-BSE-091 |
| **Scope** | University Event Management System |
| **Level** | Student goal |
| **Primary Actor** | Student |
| **Stack Holders and interests** | **Students**: The primary stakeholders interested in viewing upcoming events are the students. They need to know about the upcoming events in the university to participate, plan their schedules, and engage in extracurricular activities.  **University Administrators**: University administrators are another key stakeholder interested in viewing upcoming events in the university management events system. They need to know about the upcoming events to plan and allocate resources, schedule facilities and staff, and ensure student engagement.  **Student Organizations:** Student organizations are interested in viewing upcoming events to plan and organize their own events, avoid scheduling conflicts, and participate in university-wide events.  **Faculty and Staff**: Faculty and staff are interested in viewing upcoming events to plan and schedule their courses, office hours, and other academic and administrative activities, taking into consideration the events that may impact their work. |
| **Pre-Conditions** | * The university must have a well-designed and functional events system in place that is accessible to students and provides accurate and up-to-date information about upcoming events. * Only currently enrolled students of the university should be given access to view the upcoming events. * Students must have a valid university email account or login credentials to access the events system. * The university should regularly update the events system with accurate information about upcoming events, including dates, times, locations, and any associated fees or registration requirements. * The university must have an established process for student organizations to submit and advertise their own events on the system. * The university should have designated staff responsible for managing the events system and ensuring that it remains functional and up-to-date. * The events system should be easily accessible and user-friendly, with clear instructions for how to view and register for upcoming events. * The university should have policies and procedures in place for ensuring the privacy and security of student information, including the events system login credentials and personal data. * The university should provide adequate training and support to students on how to use the events system effectively. |
| **Success guarantee**  **(Post Conditions)** | * Students can view accurate and up-to-date information about upcoming events in the university, including dates, times, locations, and any associated fees or registration requirements. * Students can register for events they are interested in attending through the events system. * Student organizations can advertise their own events on the system, which can increase participation and engagement in their activities. * University administrators can track student engagement in university-wide events and use this information to allocate resources and plan future events. * Faculty and staff can plan their courses and academic activities, taking into account upcoming events that may impact their work. |
| **Main Success scenario** | * A student logs into the university's events system using their university email account or login credentials. * The student is presented with a dashboard that displays accurate and up-to-date information about upcoming events in the university, including dates, times, locations, and any associated fees or registration requirements. * The student can browse and search for events based on their interests and preferences. * If the student is interested in attending an event, they can register for the event through the events system. * The student can view their registered events and manage their event attendance through the system. * If the student is a member of a student organization, they can also view and advertise their own events through the system. * University administrators can use the events system to track student engagement in university-wide events and use this information to allocate resources and plan future events. * Faculty and staff can use the events system to plan their courses and academic activities, taking into account upcoming events that may impact their work. |
| **Extensions** | * The events system could offer personalized recommendations for events based on the student's interests, past event attendance, and demographic information. * The events system could integrate with social media platforms to allow students to share events with their friends and promote events to a wider audience. * The events system could offer a mobile app that provides push notifications for upcoming events, reminders for registered events, and an easy-to-use interface for browsing and registering for events on the go. * The events system could include a feedback and rating system for events, allowing students to provide feedback on the quality of events they attend and help improve future events. * The events system could integrate with the university's student information system to provide a more comprehensive view of each student's engagement in university-wide events, extracurricular activities, and academic performance. * The events system could offer gamification features, such as badges or rewards, to encourage students to participate in more events and promote healthy competition among student organizations. * The events system could incorporate virtual and hybrid events, providing students with more flexible and accessible options for participating in university-wide events. |
| **Special Requirements** | * Accessibility: The system should be designed to be accessible to students with disabilities, such as visual or hearing impairments, to ensure that all students can register for the event. * Security: The system should have robust security features, such as encryption and authentication, to ensure that the registration data is secure and protected from unauthorized access or breaches. * Scalability: The system should be able to handle a high volume of registrations, particularly if the event is popular or if there is a time-limited registration period. * Mobile responsiveness: The system should be designed to be mobile-responsive, to ensure that students can register for the event using their mobile devices, such as smartphones or tablets. |
| **Technology and data variation list** | * Programming language java will be used in the system. * Database management systems: MySQL * Payment gateways: Jazz cash easy paisa |
| **Frequency of occurrence** | * This can occur multiple times for each event. |
| **miscellaneous** | * Is the appropriate event is showing for the student? |

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| **Use case section** | Comment |
| **Use case** | View today and past events |
| **Use case ID** | SP21-BSE-091 |
| **Scope** | University Event Management System |
| **Level** | Student goal |
| **Primary Actor** | Student |
| **Stack Holders and interests** | **Students** - Students are the primary stakeholders for this feature and their interests include being able to explore past and current events, learn more about events that they have attended or missed, and provide feedback on past events.  **University Event Planners** - University event planners are responsible for organizing and promoting events on campus, and their interests include understanding which events are most popular with students, analyzing attendance and feedback data to improve future events, and promoting a vibrant campus culture.  **University Administration** - The university administration is responsible for ensuring that the campus community is engaged and connected, and their interests include supporting a wide variety of events that appeal to diverse student interests, enhancing student engagement and retention, and promoting a positive campus reputation.  **Student Organizations** - Student organizations are often responsible for planning and promoting their own events, and their interests include understanding which events are most successful and which types of events are most popular with students, as well as promoting their own events to a wider audience. |
| **Pre-Conditions** |  |
| **Success guarantee**  **(Post Conditions)** | * Students can view accurate and up-to-date information about upcoming events in the university, including dates, times, locations, and any associated fees or registration requirements. * Students can register for events they are interested in attending through the events system. * Student organizations can advertise their own events on the system, which can increase participation and engagement in their activities. * University administrators can track student engagement in university-wide events and use this information to allocate resources and plan future events. * Faculty and staff can plan their courses and academic activities, taking into account upcoming events that may impact their work. |
| **Main Success scenario** | * A student logs into the university's events system using their university email account or login credentials. * The student is presented with a dashboard that displays accurate and up-to-date information about upcoming events in the university, including dates, times, locations, and any associated fees or registration requirements. * The student can browse and search for events based on their interests and preferences. * If the student is interested in attending an event, they can register for the event through the events system. * The student can view their registered events and manage their event attendance through the system. * If the student is a member of a student organization, they can also view and advertise their own events through the system. * University administrators can use the events system to track student engagement in university-wide events and use this information to allocate resources and plan future events. * Faculty and staff can use the events system to plan their courses and academic activities, taking into account upcoming events that may impact their work. |
| **Extensions** | * The events system could offer personalized recommendations for events based on the student's interests, past event attendance, and demographic information. * The events system could integrate with social media platforms to allow students to share events with their friends and promote events to a wider audience. * The events system could offer a mobile app that provides push notifications for upcoming events, reminders for registered events, and an easy-to-use interface for browsing and registering for events on the go. * The events system could include a feedback and rating system for events, allowing students to provide feedback on the quality of events they attend and help improve future events. * The events system could integrate with the university's student information system to provide a more comprehensive view of each student's engagement in university-wide events, extracurricular activities, and academic performance. * The events system could offer gamification features, such as badges or rewards, to encourage students to participate in more events and promote healthy competition among student organizations. * The events system could incorporate virtual and hybrid events, providing students with more flexible and accessible options for participating in university-wide events. |
| **Special Requirements** | * Accessibility: The system should be designed to be accessible to students with disabilities, such as visual or hearing impairments, to ensure that all students can register for the event. * Security: The system should have robust security features, such as encryption and authentication, to ensure that the registration data is secure and protected from unauthorized access or breaches. * Scalability: The system should be able to handle a high volume of registrations, particularly if the event is popular or if there is a time-limited registration period. * Mobile responsiveness: The system should be designed to be mobile-responsive, to ensure that students can register for the event using their mobile devices, such as smartphones or tablets. |
| **Technology and data variation list** | * Programming language java will be used in the system. * Database management systems: MySQL * Payment gateways: Jazz cash easy paisa |
| **Frequency of occurrence** | * This can occur multiple times for each event. |
| **miscellaneous** | * Is the appropriate event is showing for the student? |

* 1. **Brief Level of Use Cases:**

#### **Use Case: Sign-in**

Unregistered Students and Teachers can search and view the events in the system but for for signing up we need names, address, phone number, email and more, and for this purpose we need the Teacher and students to register with our system and give his/her necessary information.

#### **Use Case: Logout**

This use case (Logout) allows students and teachers registered in the system to logout the system after providing their information such as name, address, phone number, email, events and other information items.

#### **Use Case: Select Events**

This use case (Select Events) is allow to students and teachers sign in their name in the system through, to see the type of events, the location of the events, select the date and time, and are selected to register or the participant of events .

#### **Use Case: Register for events**

This use case (Register for events) allows students and teachers to log in and register themselves after (selecting events), and participate in the selected Events.

#### **Use Case: View Upcoming events**

In this use case, students can the see the upcoming events. They can see the time, venue and organizers of the upcoming event. We can see that the events are from which department or society and for what purpose is the event.

#### **Use Case: View Today / Past events**

In this use case, Students will see that which events are taking place today and which events have passed. They will see the time, venue and organizer of the event. Moreover, they will how many students attended the event.