**Student Details**

| Repository Name | DBS25P152 |
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| Registration Number | 2024-CS-152 |

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| ***Project*** |  |
| Project Title | ITEC MANAGEMENT SYSTEM |
| Executive Summary | The Information Technology Exhibition and Competition (ITEC) is an annual event organized by the Department of Computer Science at UET Lahore. The event comprises various activities such as competitions, exhibitions, seminars, and non-tech events. Traditionally, event management has been handled manually using spreadsheets, emails, and physical records, which has resulted in data inconsistencies, difficulties in committee assignments, financial tracking inefficiencies, scheduling conflicts, and a lack of automated reporting.  To address these challenges, this project focuses on developing a desktop-based Event Management System using C# and MySQL. The system is designed to digitize and automate event planning, participant management, committee assignments, financial tracking, and duty allocations. Key functionalities include event and participant management, committee and role assignments, financial tracking, venue allocation, and automated report generation. The system aims to streamline operations, minimize human errors, and enhance the overall efficiency of event management at ITEC.  The Event Management System will enable seamless tracking of participant registrations, fee payments, committee assignments, financial transactions, and event results. Automated report generation will provide insights into participant engagement, financial summaries, and event schedules, thereby improving decision-making and overall event efficiency. |

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| ***Interface Name*** | Events |
| *Picture*  *Main pa*         |  |  |  |  | | --- | --- | --- | --- | | **UI Component Name** | **Type of UI component** | **Class Attribute name,**  **Classname, attribute name** | **Linked to which database column/table** | | add | button | event | Itec\_events | | Update | button | event | Itec\_events | | delete | button | event | Itec\_events | | Data grid | grid | Event | Itec\_events | |  |  |  |  |   In case of column, write column name and in case of multiple columns, write query in last column | |

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| ***Interface Name*** | Participants |
| *Picture*       |  |  |  |  | | --- | --- | --- | --- | | **UI Component Name** | **Type of UI component** | **Class Attribute name,**  **Classname, attribute name** | **Linked to which database column/table** | | add | button | Registration | participants | | Update | button | Registration | participants | | delete | button | Registration | Participants | | Data grid | grid | Registration | Participants | | register | button | Registration | Event\_participants | |  |  |  |  |   In case of column, write column name and in case of multiple columns, write query in last column | |
| ***Interface Name*** | Roles and Committees |
| *Picture*     |  |  |  |  | | --- | --- | --- | --- | | **UI Component Name** | **Type of UI component** | **Class Attribute name,**  **Classname, attribute name** | **Linked to which database column/table** | | add | button | committees | Committees | | delete | button | committees | committees | | Assign members | button | committees | Committees\_members | | Data grid | grid | committees | committees |   In case of column, write column name and in case of multiple columns, write query in last column | |

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| ***Interface Name*** | Duty Assignments |
| *Picture*         |  |  |  |  | | --- | --- | --- | --- | | **UI Component Name** | **Type of UI component** | **Class Attribute name,**  **Classname, attribute name** | **Linked to which database column/table** | | add | button | Duty | duty | | Track | button | duty | duty | | update | button | duty | duty | | Data grid | grid | duty | duty |   In case of column, write column name and in case of multiple columns, write query in last column | |
| ***Interface Name*** | Financial Management |
| *Picture*       |  |  |  |  | | --- | --- | --- | --- | | **UI Component Name** | **Type of UI component** | **Class Attribute name,**  **Classname, attribute name** | **Linked to which database column/table** | | See transactions | button | finances | finances | | See sponsors | button | finances | sponsors | | See vendors | button | finances | vendors | | Data grid | grid | finances | Vendors | | Data grid | grid | finances | Finances | | Data grid | grid | finances | sponsors |   In case of column, write column name and in case of multiple columns, write query in last column | |
| ***Interface Name*** | Venues |
| *Picture*    *’*       |  |  |  |  | | --- | --- | --- | --- | | **UI Component Name** | **Type of UI component** | **Class Attribute name,**  **Classname, attribute name** | **Linked to which database column/table** | | add | button | Registration | participants | | Update | button | Registration | participants | | delete | button | Registration | Participants | | Allocate | grid | Registration | Participants | | Check allocation | button | Registration | Event\_participants | | Data grid | grid | registration | participants |   In case of column, write column name and in case of multiple columns, write query in last column | |
| ***Interface Name*** | Result Management |
| *Picture*     |  |  |  |  | | --- | --- | --- | --- | | **UI Component Name** | **Type of UI component** | **Class Attribute name,**  **Classname, attribute name** | **Linked to which database column/table** | | add | button | Events\_result | Event\_result | | Generate leaderboards | button | Event\_result | Event\_result | | Data grid | grid | Event\_result | Event\_result | |  |  |  |  |   In case of column, write column name and in case of multiple columns, write query in last column | |
| ***Interface Name*** | Report generation |
| *Picture*     |  |  |  |  | | --- | --- | --- | --- | | **UI Component Name** | **Type of UI component** | **Class Attribute name,**  **Classname, attribute name** | **Linked to which database column/table** | | Event schedule report | button | reports | Many | | Participants report | button | reports | Many | | Committees reports | button | reports | Many | | Finance reports | button | reports | Many | |  |  |  |  |   In case of column, write column name and in case of multiple columns, write query in last column | |

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| ***Business Report-1*** |  |
| *Business Report Name:event schedule report* | |
| *Sample of report:* | |
| *Query to build Report:* string query = $"select event\_id,event\_name,description,event\_date,venue\_name,c.committee\_name as com\_name,category\_name from itec\_events i join committees c on c.committee\_id = i.committee\_id join venues v on v.venue\_id = i.venue\_id join event\_categories ec on ec.event\_category\_id= i.event\_category\_id join committees cm on cm.committee\_id=i.committee\_id where i.itec\_id='{id}' order by event\_id asc"; | |

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| ***Business Report-2*** |  |
| *Business Report Name:participant reports* | |
| *Sample of report:* | |
| *Query to build Report:* string query = $"select registration\_id,name,fee\_amount,l.value as pay\_status,event\_name,email,contact,institute,l1.value as role,event\_date from event\_participants e join participants p on p.participant\_id=e.participant\_id join lookup l on l.lookup\_id=e.payment\_status\_id join itec\_events ev on ev.event\_id=e.event\_id join itec\_editions i on i.itec\_id=ev.itec\_id join lookup l1 on l1.lookup\_id=p.role\_id where ev.itec\_id = {id} order by registration\_id asc"; | |

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| ***Business Report-3*** |
| *Business Report Name:committee assignment report* | |
| *Sample of report:* | |
| *Query to build Report:* string query = $"select duty\_id,committee\_name,assigned\_to,task\_description,deadline,value from duties d join committees c on c.committee\_id = d.committee\_id join lookup l on l.lookup\_id = d.status\_id join itec\_editions i on i.itec\_id=c.itec\_id where i.itec\_id = {id}"; | |

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| ***Business Report-4*** |
| *Business Report Name : finance reports* | |
| *Sample of report:* | |
| *Query to build Report:* string query = $"select sum(amount) as total\_income ,event\_name,e.description,event\_date from finances f join lookup l on l.lookup\_id = f.type\_id join itec\_events e on e.event\_id=f.event\_id where value = 'Ticket Sales' or value = 'Sponsorship' and e.itec\_id = {id} group by f.event\_id";  *Query 2:* string query = $"select sum(amount) as total\_income ,event\_name,e.description,event\_date from finances f join lookup l on l.lookup\_id = f.type\_id join itec\_events e on e.event\_id=f.event\_id where value = 'Expense' and e.itec\_id = {id} group by f.event\_id"; | |

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| ***Business Report-5*** |
| *Business Report Name:leaderboard* | |
| *Sample of report:* | |
| *Query to build Report:* string query = $"select result\_id,e.event\_name,p.name,t.team\_name,position,score,remarks,event\_date from event\_results r join itec\_events e on e.event\_id=r.event\_id join itec\_editions i on i.itec\_id = e.itec\_id join participants p on p.participant\_id = r.participant\_id join teams t on r.team\_id =t.team\_id where position <=10 and i.itec\_id = {id} order by r.event\_id,position asc"; | |