

OUTPUT:

Column customization: allow users to choose which columns are visible in the table.

Student List

Customize Columns

Filters

Search here...

Name

Delete Selected

Add Student

	Reg No	Department	Skills	College
<input type="checkbox"/>	96302203014	MECH	Spring Boot, CSS	CIT
<input type="checkbox"/>	96302201037	IT	React, Flutter	CIT
<input type="checkbox"/>	96312201011	IT	JavaScript, HTML	MIT
<input type="checkbox"/>	96302201007	IT	Flutter, Spring Boot	CIT
<input type="checkbox"/>	96282204019	ECE	MySQL, HTML	UCEN
<input type="checkbox"/>	96302202039	CSE	HTML, CSS	CIT
<input type="checkbox"/>	963121201040	Sanjay	IT	Node.js, Spring Boot
<input type="checkbox"/>	963121203016	Guhan	MECH	Flutter, React
<input type="checkbox"/>	962821201022	Jagan	IT	React, Spring Boot
<input type="checkbox"/>	963121203016	Guhan	MECH	Flutter, React

Columns

Drag to sort columns

☒ Reg No

☒ Name

☒ Department

☒ Skills

☒ College

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Name

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	Reg No	Department
<input type="checkbox"/>	96302203014	MECH
<input type="checkbox"/>	96302201037	IT
<input type="checkbox"/>	96312201011	IT
<input type="checkbox"/>	96302201007	IT
<input type="checkbox"/>	96282204019	ECE
<input type="checkbox"/>	96302202039	Ruban
<input type="checkbox"/>	963121201040	Sanjay
<input type="checkbox"/>	963121203016	Guhan
<input type="checkbox"/>	962821201022	Jagan
<input type="checkbox"/>	963121203016	Guhan

Columns

Drag to sort columns

☒ Reg No

☒ Name

☒ Department

☐ Skills

☐ College

index.html

```
<!DOCTYPE html>
```

```
<html>
```

```
  <head>
```

```
    <meta charset="utf-8">
```

```
    <title>Ember-Student-List</title>
```

```
    <meta name="description" content="">
```

```
    <meta name="viewport" content="width=device-width, initial-scale=1">
```

```
    {{content-for "head"}}
```

```
    <link integrity="" rel="stylesheet" href="{{rootURL}}assets/vendor.css">
```

```
    <link integrity="" rel="stylesheet" href="{{rootURL}}assets/ember-student-list.css">
```

```
    <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/6.7.2/css/all.min.css" integrity="sha512-Evv84Mr4kqVGRNSglGL/F/aIDqQb7xQ2vcrdlwxfjThSH8CSR7PBEakCr51Ck+w+/U6swU2Im1vVX0SVk9ABhg==" crossorigin="anonymous" referrerpolicy="no-referrer" />
```

```
    <link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css">
```

```
  {{content-for "head-footer"}}
```

```
</head>
```

```
<body>
```

```
  {{content-for "body"}}
```

```
  <script src="{{rootURL}}assets/vendor.js"></script>
```

```
  <script src="{{rootURL}}assets/ember-student-list.js"></script>
```

```
  {{content-for "body-footer"}}
```

```
</body>
```

```
</html>
```

templates/application.hbs

```
{{outlet}}  
  
<BasicDropdownWormhole />
```

templates/students.hbs

```
<nav class="navbar">  
  <div class="navbar-title"><i class="fa-solid fa-graduation-cap"></i>Student Management  
System</div>  
  <div class="toggle-profile">  
    <button id="theme-toggle-btn" {{on "click" this.toggleTheme}}>  
      {{#if this.isDarkMode}}  
        <i class="bi bi-sun"></i>  
      {{else}}  
        <i class="bi bi-moon-stars"></i>  
      {{/if}}  
    </button>  
    <i class="bi bi-person-circle"></i>  
  </div>  
</nav>  
  
{{#each this.flashMessages.queue as |flash|}}  
<FlashMessage @flash={{flash}} @messageStyle='bootstrap' />  
{{/each}}  
  
<div
```

```
class="{{if (or (eq this.currentRoute 'students.add') (eq this.currentRoute 'students.edit'))
'full-screen-outlet' ''}}">
```

```
{{liquid-outlet}}
```

```
</div>
```

```
<div class="student-container">
```

```
<div class="search-dlt-cont">
```

```
<div><span>Student List</span></div>
```

```
<div class="search-cd-cont">
```

```
<button class="btn-filter" {{on "click" this.toggleCustomize}}>
```

```
<i class="bi bi-layout-sidebar-inset"></i> Customize Columns
```

```
</button>
```

```
{{#if this.isCustomizeVisible}}
```

```
<div class="customize-column" {{on-click-outside this.toggleCustomize}}>
```

```
<span {{on "click" this.toggleCustomize}} {{on-key 'Escape' this.toggleCustomize}}
```

```
class="close-modal"><i class="fa-solid fa-xmark"></i></span>
```

```
<strong>Columns</strong>
```

```
<p>Drag to sort columns</p>
```

```
<ul {{sortable-group onChange=this.reorderItems}}>
```

```
{{#each this.items as |col|}}
```

```
<li {{sortable-item model=col}}>
```

```
<div>
```

```
<label>
```

```
<input type="checkbox" checked={{this.isColumnVisible col.key}} {{on
"change" (fn
```

```
this.toggleColumnVisibility col.key)}} />
```

```
{{capitalize col.label}}
```

```
</label>
```

```

        <span class="handle" {{sortable-handle}}><i class="bi bi-list"></i></span>

    </div>

</li>

{{/each}}

</ul>

</div>

{{/if}}

<button class="btn-filter" {{on "click" this.toggleFilter}}>

    <i class="bi bi-funnel"></i> Filters

</button>

{{#if this.isFilterVisible}}

<div class="advanced-filters" {{on-click-outside this.toggleFilter}}>

    <span {{on "click" this.toggleFilter}} {{on-key 'Escape' this.toggleFilter}} class="close-
modal"><i

        class="fa-solid fa-xmark"></i></span>

    <div class="filter-section">

        <strong>Departments</strong>

        <div class="filter-dept">

            {{#each this.availableDepartments as |dept|}}

                <label>

                    <input type="checkbox" value={{dept}} {{on "change" this.updateDeptFilter}}

                        checked={{this.isDeptChecked dept}} />

                    {{dept}}

                </label>

            {{/each}}

        </div>

    </div>

</div>

```

```

<div class="filter-section">
  <strong>Skills:</strong>
  <div class="filter-skill">
    {{#each this.availableSkills as |skill|}}
    <label>
      <input type="checkbox" value={{skill}} {{on "change" this.updateSkillsFilter}}
        checked={{includes this.filter.skills skill}} />
      {{skill}}
    </label>
    {{/each}}
  </div>
</div>

<button type="button" {{on "click" this.applyFilter}} class="btn-cd filter">Apply
Filters</button>

<button type="button" {{on "click" this.clearAllFilters}} class="btn-cd cancel">Clear
All</button>

</div>
{{/if}}

```

```

<div class="search-cont">
  <i class="fa-solid fa-magnifying-glass"></i>
  <input type="text" id="search" placeholder="Search here..." {{on "keyup"
this.handleSearch}}>

  <div class="power-select-wrapper">
    <PowerSelectMultiple @selected={{this.selectedColumnValues}}
@options={{this.searchColumnOptions}}
    @onChange={{this.updateSearchColumns}} @placeholder="Search by"
    @searchEnabled={{false}} as

```

```

        |option|>
        {{option.label}}
    </PowerSelectMultiple>
</div>
</div>

<button {{on "click" this.bulkDelete}} class="btn-cd dlt" {{on-key 'Delete'
this.bulkDelete}}>

    <i class="fa-regular fa-trash-can"></i> Delete Selected

</button>

<LinkTo @route="students.add" class="btn-cd add" {{on-key 'alt+a' this.addStud}}>

    <i class="fa-solid fa-user-plus"></i> Add Student

</LinkTo>
</div>
</div>

<StudentList @items={{this.items}} @students={{this.students.filteredStudents}}
@deleteRow={{this.deleteRow}}

    @editRow={{this.editRow}} @toggleSelectAll={{this.toggleSelectAll}}
    @selectAll={{this.selectAll}}

    @sortByName={{this.sortByName}} @isAscending={{this.isAscending}}
    @visibleColumns={{this.visibleColumns}}

    @sortKey={{this.sortKey}} @sortByKey={{this.sortByKey}} />
</div>

```

templates/students/add.hbs

```

<div {{on-click-outside this.closeForm}}>

    <StudentForm @addRow={{this.addRow}} @closeForm={{this.closeForm}} />

</div>

```

templates/students/edit.hbs

```
<div {{on-click-outside this.closeForm}}>

  <StudentForm @editStudent={{this.model}} @students={{this.students.students}}
  @saveStudent={{this.saveStudent}}

    @updateStudents={{this.updateStudents}} @closeForm={{this.closeForm}} />

</div>
```

services/students.js

```
import Service from '@ember/service';
import { tracked } from '@glimmer/tracking';

export default class StudentsService extends Service {

  @tracked students = [

    { name: "Faiz", reg: 963021203014, dept: "MECH", clg: "CIT", skills: ["Spring Boot", "CSS"] },

    { name: "Raj", reg: 963021201037, dept: "IT", clg: "CIT", skills: ["React", "Flutter"] },

    { name: "Dinesh", reg: 963121201011, dept: "IT", clg: "MIT", skills: ["JavaScript", "HTML"] },

    { name: "Bhavesh", reg: 963021201007, dept: "IT", clg: "CIT", skills: ["Flutter", "Spring Boot"] },

    { name: "Harsha", reg: 962821204019, dept: "ECE", clg: "UCEN", skills: ["MySQL", "HTML"] },

    { name: "Ruban", reg: 963021202039, dept: "CSE", clg: "CIT", skills: ["HTML", "CSS"] },

    { name: "Sanjay", reg: 963121201040, dept: "IT", clg: "MIT", skills: ["Node.js", "Spring Boot"] },

    { name: "Guhan", reg: 963121203016, dept: "MECH", clg: "MIT", skills: ["Flutter", "React"] },

    { name: "Jagan", reg: 962821201022, dept: "IT", clg: "UCEN", skills: ["React", "Spring Boot"] },

    { name: "Charan", reg: 963121202008, dept: "CSE", clg: "MIT", skills: ["CSS", "MySQL"] },

  ]
```



```
{ name: "Vijay", reg: 962821204047, dept: "ECE", clg: "UCEN", skills: ["Flutter", "MySQL"]
},
{ name: "Manoj", reg: 962821201030, dept: "IT", clg: "UCEN", skills: ["JavaScript", "React"]
},
{ name: "Kiran", reg: 962821203026, dept: "MECH", clg: "UCEN", skills: ["CSS", "Flutter"] },
{ name: "Surya", reg: 963121203043, dept: "MECH", clg: "MIT", skills: ["React", "Flutter"] },
{ name: "Dev", reg: 963021201010, dept: "IT", clg: "CIT", skills: ["React", "HTML"] },
{ name: "Aswin", reg: 962821203005, dept: "MECH", clg: "UCEN", skills: ["Node.js",
"MySQL"] },
{ name: "Yogesh", reg: 962821203049, dept: "MECH", clg: "UCEN", skills: ["Spring Boot",
"CSS"] },
{ name: "Lokesh", reg: 963021204029, dept: "ECE", clg: "CIT", skills: ["Flutter", "MySQL"] },
{ name: "Kavin", reg: 963121202027, dept: "CSE", clg: "MIT", skills: ["Spring Boot",
"React"] },
{ name: "Omprakash", reg: 962821203034, dept: "MECH", clg: "UCEN", skills: ["CSS",
"HTML"] },
{ name: "Ethan", reg: 962821202012, dept: "CSE", clg: "UCEN", skills: ["Node.js",
"JavaScript"] },
{ name: "Ajay", reg: 963021204003, dept: "ECE", clg: "CIT", skills: ["Spring Boot", "MySQL"]
},
{ name: "Zaid", reg: 963021201050, dept: "IT", clg: "CIT", skills: ["Node.js", "HTML"] },
{ name: "Abishek", reg: 962821202002, dept: "CSE", clg: "UCEN", skills: ["Spring Boot",
"Flutter"] },
{ name: "Irfan", reg: 963021202021, dept: "CSE", clg: "CIT", skills: ["Spring Boot",
"JavaScript"] },
{ name: "Hari", reg: 963021202017, dept: "CSE", clg: "CIT", skills: ["CSS", "HTML"] },
{ name: "Elavarasan", reg: 962821201013, dept: "IT", clg: "UCEN", skills: ["HTML", "React"]
},
{ name: "Nithin", reg: 963021201033, dept: "IT", clg: "CIT", skills: ["Node.js", "CSS"] },
{ name: "Lalith", reg: 963021202028, dept: "CSE", clg: "CIT", skills: ["HTML", "MySQL"] },
{ name: "Sathish", reg: 962821201041, dept: "IT", clg: "UCEN", skills: ["JavaScript",
"Node.js"] },
```

```
{ name: "Udhay", reg: 963121202045, dept: "CSE", clg: "MIT", skills: ["JavaScript",
"MySQL"] },

{ name: "Keerthi", reg: 962821203025, dept: "MECH", clg: "UCEN", skills: ["React", "CSS"]
},

{ name: "Deepak", reg: 962821201009, dept: "IT", clg: "UCEN", skills: ["JavaScript", "Spring
Boot"] },

{ name: "Jeeva", reg: 962821201023, dept: "IT", clg: "UCEN", skills: ["HTML", "Node.js"] },

{ name: "Aakash", reg: 962821201001, dept: "IT", clg: "UCEN", skills: ["JavaScript",
"React"] },

{ name: "Praveen", reg: 963121204036, dept: "ECE", clg: "MIT", skills: ["MySQL", "HTML"]
},

{ name: "Karthik", reg: 963121201024, dept: "IT", clg: "MIT", skills: ["Flutter", "React"] },

{ name: "Muhamad", reg: 962821201031, dept: "IT", clg: "UCEN", skills: ["JavaScript",
"React"] },

{ name: "Harish", reg: 962821201018, dept: "IT", clg: "UCEN", skills: ["Node.js", "CSS"] },

{ name: "Arun", reg: 963121201004, dept: "IT", clg: "MIT", skills: ["React", "Spring Boot"] },

{ name: "Pranav", reg: 962821202035, dept: "CSE", clg: "UCEN", skills: ["MySQL",
"JavaScript"] },

{ name: "Venkatesh", reg: 963021203046, dept: "MECH", clg: "CIT", skills: ["React",
"Flutter"] },

{ name: "Imran", reg: 963121202020, dept: "CSE", clg: "MIT", skills: ["Node.js",
"JavaScript"] },

{ name: "Gokul", reg: 962821204015, dept: "ECE", clg: "UCEN", skills: ["MySQL", "Flutter"]
},

{ name: "Naveen", reg: 963121202032, dept: "CSE", clg: "MIT", skills: ["Spring Boot",
"Node.js"] },

{ name: "Vimal", reg: 963121202048, dept: "CSE", clg: "MIT", skills: ["React", "CSS"] },

{ name: "Bala", reg: 962821202006, dept: "CSE", clg: "UCEN", skills: ["CSS", "Node.js"] },

{ name: "Tharun", reg: 962821204044, dept: "ECE", clg: "UCEN", skills: ["HTML", "CSS"] },

{ name: "Ragul", reg: 962821203038, dept: "MECH", clg: "UCEN", skills: ["Node.js",
"Flutter"] }

];
```

```
@tracked filteredStudents = this.students;
```

```
searchStudents(query, searchColumns = ['name', 'dept', 'clg']) {
```

```
  query = query.toLowerCase();
```

```
  this.filteredStudents = this.students.filter(student => {
```

```
    return searchColumns.some(column => {
```

```
      switch(column) {
```

```
        case 'reg':
```

```
          return student.reg.toString().toLowerCase().includes(query);
```

```
        case 'skills':
```

```
          return student.skills.join(' ').toLowerCase().includes(query);
```

```
        case 'name':
```

```
        case 'dept':
```

```
        case 'clg':
```

```
          return student[column]?.toLowerCase().includes(query);
```

```
        default:
```

```
          return false;
```

```
      }
```

```
    });
```

```
  });
```

```
}
```

```
}
```

routes/students.js

```
import Route from '@ember/routing/route';
```

```
export default class StudentsRoute extends Route {}
```

routes/students/add.js

```
import Route from '@ember/routing/route';  
  
export default class StudentsAddRoute extends Route { }
```

routes/students/edit.js

```
import Route from '@ember/routing/route';  
  
import { service } from '@ember/service';  
  
export default class StudentsEditRoute extends Route {  
  
  @service students;  
  
  model(params) {  
  
    return this.students.students.find(student => student.reg == Number(params.reg));  
  
  }  
  
}
```

controllers/students.js

```
import Controller from '@ember/controller';  
  
import { action } from '@ember/object';  
  
import { tracked } from '@glimmer/tracking';  
  
import { service } from '@ember/service';  
  
import { task, timeout } from 'ember-concurrency';  
  
import { htmlSafe } from '@ember/template';  
  
  
  
export default class StudentsController extends Controller {  
  
  @service router;  
  
  @service students;  
  
  @service flashMessages;  
  
  @tracked isFormVisible = false;
```

```
@tracked editStudent = null;
```

```
@tracked selectAll = false;
```

```
@tracked isDarkMode = false;
```

```
@tracked sortKey = 'name';
```

```
@tracked isAscending = true;
```

```
@tracked recentlyDeletedStudents = [];
```

```
@tracked isFilterVisible = false;
```

```
@tracked filter = {
```

```
  depts: [],
```

```
  skills: []
```

```
};
```

```
@tracked isCustomizeVisible = false;
```

```
@tracked visibleColumns = ['reg', 'name', 'dept', 'skills', 'clg'];
```

```
@tracked searchColumns = ['name'];
```

```
@tracked lastSearchQuery = "";
```

```
searchColumnOptions = [
```

```
  { value: 'name', label: 'Name' },
```

```
  { value: 'reg', label: 'Reg No' },
```

```
  { value: 'dept', label: 'Dept' },
```

```
  { value: 'skills', label: 'Skills' },
```

```
  { value: 'clg', label: 'College' }
```

```
];
```

```
@tracked items = [  
  { key: "reg", label: "Reg No" },  
  { key: "name", label: "Name" },  
  { key: "dept", label: "Department" },  
  { key: "skills", label: "Skills" },  
  { key: "clg", label: "College" }];
```

```
@action reorderItems(itemModels, draggedModel) {  
  this.items = itemModels;  
  this.lastDragged = draggedModel;  
}
```

```
get isDeptChecked() {  
  return (dept) => {  
    return this.filter.depts.includes(dept);  
  };  
}
```

```
get currentRoute() {  
  return this.router.currentRouteName;  
}
```

```
@action toggleFilter() {  
  this.isFilterVisible = !this.isFilterVisible;  
}
```

```
@action toggleCustomize() {
```

```
    this.isCustomizeVisible = !this.isCustomizeVisible;
}
```

```
get availableDepartments() {
    let depts = this.students.students.map(student => student.dept);
    return [...new Set(depts)];
}
```

```
get availableSkills() {
    let allSkills = this.students.students.flatMap(student => student.skills || []);
    return [...new Set(allSkills)];
}
```

```
@action applyFilter() {
    this.isFilterVisible = !this.isFilterVisible;
    this.students.filteredStudents = this.students.students.filter(student => {
        let { depts, skills } = this.filter;

        if (depts.length && !depts.includes(student.dept)) {
            return false;
        }

        if (skills.length && !skills.every(skill => student.skills.includes(skill))) {
            return false;
        }

        return true;
    });
}
```

```
    this.flashMessages.success(htmlSafe('<i class="bi bi-check-circle-fill"></i> Filters applied'));
  }
```

```
@action clearAllFilters() {
  this.filter = {
    depts: [],
    skills: []
  };
  this.isFilterVisible = false;
  this.students.filteredStudents = [...this.students.students];
  this.flashMessages.success(htmlSafe('<i class="bi bi-check-circle-fill"></i> Filters cleared'));
}
```

```
@action updateDeptFilter(event) {
  let value = event.target.value;
  let isChecked = event.target.checked;

  if (isChecked) {
    this.filter = {
      ...this.filter,
      depts: [...this.filter.depts, value]
    };
  } else {
    this.filter = {
      ...this.filter,
      depts: this.filter.depts.filter(dept => dept !== value)
    };
  }
}
```



```
}
```

```
@action updateSkillsFilter(event) {
```

```
  let value = event.target.value;
```

```
  let isChecked = event.target.checked;
```

```
  if (isChecked) {
```

```
    this.filter = {
```

```
      ...this.filter,
```

```
      skills: [...this.filter.skills, value]
```

```
    };
```

```
  } else {
```

```
    this.filter = {
```

```
      ...this.filter,
```

```
      skills: this.filter.skills.filter(skill => skill !== value)
```

```
    };
```

```
  }
```

```
}
```

```
@action toggleColumnVisibility(column) {
```

```
  if (this.visibleColumns.includes(column)) {
```

```
    this.visibleColumns = this.visibleColumns.filter(c => c !== column);
```

```
  } else {
```

```
    this.visibleColumns = [...this.visibleColumns, column];
```

```
  }
```

```
}
```

```
@action isColumnVisible(column) {
```

```
    return this.visibleColumns.includes(column);  
}
```

```
@action sortByKey(key) {  
    this.sortKey = key;  
    console.log(this.sortKey)
```

```
    let sorted = [...this.students.filteredStudents].sort((a, b) => {  
        let aVal = a[key];  
        let bVal = b[key];
```

```
        if (Array.isArray(aVal)) aVal = aVal.join(', ');  
        if (Array.isArray(bVal)) bVal = bVal.join(', ');
```

```
        if (typeof aVal === 'string' && typeof bVal === 'string') {  
            return this.isAscending  
                ? aVal.localeCompare(bVal)  
                : bVal.localeCompare(aVal);  
        } else {  
            return this.isAscending ? aVal - bVal : bVal - aVal;  
        }  
    });
```

```
    this.students.filteredStudents = sorted;  
    this.isAscending = !this.isAscending;  
}
```

```
@action addStud() {  
  this.router.transitionTo('students.add');  
}
```

```
@action toggleSelectAll(event) {  
  this.selectAll = event.target.checked;
```

```
  let checkboxes = document.querySelectorAll("#table input[type='checkbox']");  
  checkboxes.forEach(checkbox => {  
    checkbox.checked = this.selectAll;  
  });  
}
```

```
@action handleSearch(event) {  
  const query = event.target.value.toLowerCase();  
  this.lastSearchQuery = query;  
  this.students.searchStudents(query, this.searchColumns);  
}
```

```
get selectedColumnValues() {  
  return this.searchColumns.map(value => {  
    return this.searchColumnOptions.find(opt => opt.value === value);  
  }).filter(Boolean);  
}
```

```
@action  
updateSearchColumns(selected) {  
  this.searchColumns = selected.map(item => item.value);
```

```
if (this.lastSearchQuery) {
  this.students.searchStudents(this.lastSearchQuery, this.searchColumns);
}
}

@action bulkDelete() {
  let checkboxes = document.querySelectorAll("#table input[type='checkbox']:checked");

  if (!checkboxes.length) {
    this.flashMessages.warning(htmlSafe('<i class="bi bi-exclamation-triangle-fill"></i> Select
one or more rows to delete'));
    return;
  }

  let selectedRegs = Array.from(checkboxes).map(checkbox => {
    let row = checkbox.closest("tr");
    return row.cells[1].textContent.trim();
  });

  this.students.filteredStudents = this.students.filteredStudents.filter(
    student => !selectedRegs.includes(String(student.reg)));

  this.selectAll = false;
  checkboxes.forEach(checkbox => checkbox.checked = false);

  this.flashMessages.success(htmlSafe('<i class="bi bi-check-circle-fill"></i> Selected
students deleted successfully', { timeout: 2000 }));
}
```

```
@action deleteRow(reg) {  
  const index = this.students.filteredStudents.findIndex(s => s.reg === reg);  
  const student = this.students.filteredStudents[index];  
  
  this.students.filteredStudents = this.students.filteredStudents.filter(s => s.reg !== reg);  
  
  const id = Date.now();  
  this.recentlyDeletedStudents.push({ id, student, index });  
  
  this.flashMessages.add({  
    type: 'success',  
    message: htmlSafe(`<i class="bi bi-check-circle-fill"></i> Student deleted. <button  
class="undo-btn" data-id="${id}">Undo</button>`),  
    timeout: 5000,  
    sticky: true,  
  });  
  
  setTimeout(() => {  
    const undoBtn = document.querySelector(`.undo-btn[data-id="${id}"]`);  
    if (undoBtn) {  
      undoBtn.addEventListener('click', () => this.undoDelete(id));  
    }  
  }, 0);  
  
  setTimeout(() => {  
    this.recentlyDeletedStudents = this.recentlyDeletedStudents.filter(item => item.id !== id);  
  }, 5000);  
}
```

```
}
```

```
@action undoDelete(id) {
```

```
  const entry = this.recentlyDeletedStudents.find(item => item.id === id);
```

```
  if (entry) {
```

```
    const studentsCopy = [...this.students.filteredStudents];
```

```
    studentsCopy.splice(entry.index, 0, entry.student);
```

```
    this.students.filteredStudents = studentsCopy;
```

```
    this.recentlyDeletedStudents = this.recentlyDeletedStudents.filter(
```

```
      item => item.id !== id
```

```
    );
```

```
    this.flashMessages.success(htmlSafe('<i class="bi bi-check-circle-fill"></i> Undo  
successful!'));
```

```
  }
```

```
}
```

```
@action editRow(reg) {
```

```
  this.editStudent = this.students.filteredStudents.find(student => student.reg === reg);
```

```
  this.router.transitionTo('students.edit', reg);
```

```
}
```

```
@action toggleTheme() {
```

```
  this.isDarkMode = !this.isDarkMode;
```

```
  const newTheme = this.isDarkMode ? 'dark' : 'light';
```

```
  document.documentElement.setAttribute('data-theme', newTheme);
```

```
}}
```

controllers/students/add.js

```
import Controller from '@ember/controller';
import { service } from '@ember/service';
import { action } from '@ember/object';
import { htmlSafe } from '@ember/template';

export default class StudentsAddController extends Controller {

  @service router;

  @service students;

  @service flashMessages;

  @action addRow(student) {

    this.students.students = [...this.students.students, student];

    this.students.filteredStudents = this.students.students;

    this.router.transitionTo('students');

    this.flashMessages.success(htmlSafe('<i class="bi bi-check-circle-fill"></i> Student
added successfully!'));

  }

  @action closeForm() {

    this.router.transitionTo('students');

  }

}
```

controllers/students/edit.js

```
import Controller from '@ember/controller';
import { service } from '@ember/service';
```

```

import { action } from '@ember/object';
import { htmlSafe } from '@ember/template';

export default class StudentsEditController extends Controller {

  @service router;
  @service students;
  @service flashMessages;

  @action updateStudents(updatedStudents) {
    this.students.filteredStudents = updatedStudents;

    this.router.transitionTo('students');

    this.flashMessages.success(htmlSafe('<i class="bi bi-check-circle-fill"></i> Student
updated successfully!'));
  }

  @action closeForm() {
    this.router.transitionTo('students');
  }
}

```

components/student-form.hbs

```

<form id="formCont" {{on "keydown" this.handleEnter}} {{on-key 'Escape' @closeForm}}
{{on-click-outside @closeForm}}>

  <h4>{{if this.isEditing "Edit Student" "Add New Student"}}</h4>

  <span id="close-btn" {{on "click" @closeForm}}>

    <i class="fa-solid fa-xmark"></i>

```


<label for="name">Name</label>

<input id="name" type="text" value={{this.name}} {{on "input" this.updateName}}
placeholder="Enter Name" required>

<label for="reg">Registration Number</label>

<input id="reg" type="number" value={{this.reg}} {{on "input" this.updateReg}}
placeholder="Enter Reg No" required>

<label for="clg">College</label>

<input id="clg" type="text" value={{this.clg}} {{on "input" this.updateClg}}
placeholder="Enter College" required>

<label for="dept">Department</label>

<PowerSelect @options={{this.departments}} @selected={{this.dept}}
@searchEnabled={{true}}
@onChange={{this.updateDept}} @placeholder="Select dept..." @triggerId="dept"
@required={{true}} as | department |>
{{department}}
</PowerSelect>

<label for="skills">Skills</label>

<PowerSelectMultiple @options={{this.skills}} @selected={{this.selectedSkills}}
@searchEnabled={{true}}
@onChange={{this.updateSkills}} @placeholder="Select skills..." @triggerId="skills"
@required={{true}} as | skill |>
{{skill}}
</PowerSelectMultiple>

```

<div class="decision">

  <button class="btn-cd cancel" type="button" {{on "click" @closeForm}}>Cancel</button>

  <button class="btn-cd uc" type="submit" {{on "click" this.saveStudent}}>

    {{if this.isEditing "Update" "Add"}}

  </button>

</div>

</form>

```

components/student-list.hbs

```

<div class="table-container">

  <table id="table">

    <thead>

      <tr>

        <th><input type="checkbox" {{on "change" @toggleSelectAll}} checked={{@selectAll}}
/></th>

        {{#each @items as |item|}}

          {{#if (includes @visibleColumns item.key)}}

            <th>

              {{item.label}}

              {{#if (or (eq item.key "name") (eq item.key "reg") (eq item.key "dept") (eq item.key
"clg") (eq item.key
"skills"))}}

                <i

                  {{on "click" (fn @sortByKey item.key)}}><i class="bi bi-arrow-down-up"></i></i>

                {{/if}}

              </th>

            {{/if}}

          {{/if}}

        {{/each}}

      </tr>

    </thead>

  </table>

```

```

    {{/each}}

    <th>Action</th>

  </tr>

</thead>

<tbody>

  {{#if (and @students (gt @students.length 0))}}

    <VerticalCollection @estimateHeight={{60}} @items={{@students}} @key="reg"
@containerSelector=".table-container"

    as |student|>

      <tr>

        <td><input type="checkbox" /></td>

        {{#each @items as |item|}}

          {{#if (includes @visibleColumns item.key)}}

            <td>

              {{#if (eq item.key "skills")}}

                {{join-array student.skills " , "}}

              {{else if (eq item.key "clg")}}

                {{student.clg}}

              {{else}}

                {{get student item.key}}

              {{/if}}

            </td>

          {{/if}}

        {{/each}}

        <td>

          <button class="btn-ed edit" type="button" {{on "click" (fn @editRow student.reg)}}>

            <i class="fa-solid fa-pen-to-square"></i>


```

```

        </button>

        <button class="btn-ed delete" type="button" {{on "click" (fn @deleteRow
student.reg)}}>

            <i class="fa-solid fa-trash"></i>

        </button>

    </td>

</tr>

</VerticalCollection>

{{else}}

<tr>

    <td colspan="6" style="text-align: center;">No students found</td>

</tr>

{{/if}}

</tbody>

</table>

</div>

```

components/student-form.js

```

import Component from '@glimmer/component';
import { action } from '@ember/object';
import { tracked } from '@glimmer/tracking';
import { service } from '@ember/service';
import { htmlSafe } from '@ember/template';

export default class StudentFormComponent extends Component {
    @service flashMessages;

```

```
@tracked name = this.args.editStudent?.name || "";
@tracked reg = this.args.editStudent?.reg || "";
@tracked selectedSkills = this.args.editStudent?.skills || [];
@tracked dept = this.args.editStudent?.dept || null;
@tracked clg = this.args.editStudent?.clg || "";
@tracked isEditing = !!this.args.editStudent;

skills = ['JavaScript', 'React', 'Spring Boot', 'Flutter', 'MySQL', 'Node.js', 'CSS', 'HTML'];

@action updateSkills(selected) {
  this.selectedSkills = selected;
  console.log(this.selectedSkills);
}

departments = ['IT', 'CSE', 'ECE', 'MECH'];
@action updateDept(selectedDept) {
  this.dept = selectedDept;
}

@action updateName(event) {
  this.name = event.target.value;
}

@action updateReg(event) {
  this.reg = event.target.value;
}

@action updateClg(event) {
```

```
    this.clg = event.target.value;
}
```

```
@action saveStudent() {
```

```
    if (!this.name || !this.reg || !this.dept || !this.clg || this.selectedSkills.length === 0) {
        this.flashMessages.warning(htmlSafe('<i class="bi bi-exclamation-triangle-fill"></i> Fill
all the details'));
        return;
    }
```

```
    if (this.isEditing) {
        let updatedStudents = this.args.students.map(student =>
            student.reg === this.reg
                ? { ...student, name: this.name, dept: this.dept, skills: this.selectedSkills, clg:
this.clg }
                : student
        );
```

```
        this.args.updateStudents(updatedStudents);
    } else {
        this.args.addRow({
            name: this.name,
            reg: this.reg,
            dept: this.dept,
            skills: this.selectedSkills,
            clg: this.clg
        });
    }
}
```

```
        this.args.closeForm();
    }

    @action handleEnter(event) {
        event.preventDefault();
        if (event.key === "Enter") {
            this.saveStudent();
        }
    }
}
```

styles/app.css

```
:root {
    --bg-color: #ffffff;
    --text-color: #353535;
    --card-bg: #ffffff;
    --input-bg: #ffffff;
    --table-bg: #ffffff;
    --table-header-bg: #f8f9fa;
    --table-text: #3e3e3e;
    --border-color: #dadada;
    --shadow-color: rgba(0, 0, 0, 0.1);
    --navbar-bg: #ffffff;
    --hover-bg: #f5f5f5;
    --search-border: #ccc;
}
```

```
[data-theme='dark'] {  
  --bg-color: #212121;  
  --text-color: #f1f1f1;  
  --card-bg: #2b2b2b;  
  --input-bg: #333333;  
  --table-bg: #272727;  
  --table-header-bg: #2b2b2b;  
  --table-text: #e0e0e0;  
  --border-color: #3b3b3b;  
  --shadow-color: rgba(0, 0, 0, 0.6);  
  --navbar-bg: #2e2e2e;  
  --hover-bg: #262626;  
  --search-border: #555555;  
}
```

```
.ember-power-select-dropdown {  
  background-color: var(--card-bg) !important;  
  color: var(--text-color) !important;  
  border: 1px solid var(--border-color) !important;  
  box-shadow: 0 4px 8px var(--shadow-color) !important;  
}
```

```
.ember-power-select-option {  
  color: var(--text-color) !important;  
}
```

```
.ember-power-select-option[aria-selected='true'] {  
  background-color: #4f8091 !important;
```



```
    color: white !important;
    font-weight: bold !important;
}
```

```
.ember-power-select-option[aria-current='true'] {
    background-color: var(--hover-bg) !important;
    color: var(--text-color) !important;
}
```

```
.ember-power-select-option:hover {
    background-color: var(--hover-bg) !important;
    color: var(--text-color) !important;
}
```

```
form .ember-power-select-trigger {
    background-color: var(--card-bg) !important;
    color: var(--text-color) !important;
    border: 1px solid var(--border-color) !important;
    border-radius: 5px;
    padding: 0 1rem;
    scrollbar-width: none;
    height: 40px;
}
```

```
.ember-power-select-placeholder {
    color: var(--text-color) !important;
    opacity: 0.6;
}
```

```
.ember-power-select-multiple-option {  
  background-color: var(--hover-bg) !important;  
  color: var(--text-color) !important;  
  border: 1px solid var(--border-color) !important;  
  margin: 0 4px 4px 0;  
  padding: 2px 6px;  
  border-radius: 4px;  
}
```

```
.ember-power-select-clear-btn {  
  color: var(--text-color) !important;  
}
```

```
.ember-basic-dropdown-content {  
  background-color: var(--card-bg) !important;  
  color: var(--text-color) !important;  
  border: 1px solid var(--border-color) !important;  
}
```

```
body {  
  background-color: var(--bg-color) !important;  
  color: var(--text-color);  
  transition: all 0.3s ease;  
  display: flex;  
  align-items: center;  
  flex-direction: column;  
  font-family: Arial, Helvetica, sans-serif;  
  height: 100vh;
```

```
}
```

```
.navbar {  
  margin-bottom: 2rem;  
  width: 100%;  
  height: 4rem;  
  background-color: var(--navbar-bg);  
  box-shadow: 0 2px 8px var(--shadow-color);  
  font-weight: bold;  
  font-size: 20px;  
  display: flex;  
  justify-content: space-between;  
  color: var(--text-color);  
}
```

```
.navbar-title {  
  display: flex;  
  align-items: center;  
  gap: 5px;  
  padding: 0 2rem;  
  color: var(--text-color);  
  font-size: 18px;  
  font-weight: 600;  
}
```

```
#theme-toggle-btn {  
  background: transparent;  
  border: none;
```

```
    font-size: 14px;
    font-weight: 600;
    display: flex;
    justify-content: center;
    align-items: center;
}
```

```
#theme-toggle-btn i {
    font-size: 20px;
}
```

```
.toggle-profile {
    display: flex;
    gap: 1.5rem;
    padding: 0 2rem;
}
```

```
.toggle-profile i {
    font-size: 24px;
    cursor: pointer;
    color: var(--table-text);
}
```

```
.flash-message {
    text-align: center;
    min-width: 250px !important;
    border-radius: 10px !important;
```

```
padding: 0.5rem !important;
z-index: 1050;
position: fixed !important;
top: 1rem;
right: 2rem;
opacity: 1;
animation: bounceIn 0.6s ease-out, fadeOut 0.5s ease-in 5s forwards;
}
```

```
@keyframes bounceIn {
  0% {
    transform: scale(0.5);
    opacity: 0;
  }
```

```
  60% {
    transform: scale(1.1);
    opacity: 1;
  }
```

```
  100% {
    transform: scale(1);
    opacity: 1;
  }
}
```

```
@keyframes fadeOut {
  to {
```

```
        opacity: 0;
        transform: translateY(-20px);
    }
}
```

```
.undo-btn {
    background: transparent;
    border: none;
    border-bottom: 1px solid #000;
    color: rgb(86, 86, 86);
}
```

```
.student-container {
    display: flex;
    align-items: center;
    flex-direction: column;
    border: 1px solid var(--border-color);
    border-radius: 10px;
    height: 80vh;
    width: 80%;
    background-color: var(--card-bg);
}
```

```
.full-screen-outlet {
    position: fixed;
    top: 0;
    left: 0;
    height: 100%;
}
```

```
width: 100%;  
background: linear-gradient(to bottom, rgba(50, 50, 50, 0.7), rgba(45, 45, 45, 0.6));  
z-index: 1000;  
}
```

```
[data-theme='dark'] .full-screen-outlet {  
  background: linear-gradient(to bottom, rgba(67, 67, 67, 0.6), rgba(88, 88, 88, 0.6));  
}
```

```
#formCont {  
  display: flex;  
  flex-direction: column;  
  gap: 0.5rem;  
  left: 35%;  
  background-color: var(--card-bg);  
  color: var(--text-color);  
  padding: 2.5rem;  
  border-radius: 20px;  
  width: 30%;  
  z-index: 2000;  
  position: relative;  
  margin: 4% 0;  
}
```

```
label {  
  font-weight: 600;  
  color: var(--text-color);  
  margin: 0.3rem 0;
```

```
    font-size: 14px;
}
```

```
input {
    padding: 0.5rem 1rem;
    border: 1px solid var(--border-color);
    background-color: var(--card-bg);
    color: var(--text-color);
    outline: none;
    height: 35px;
}
```

```
input:focus {
    border: 1px solid #a6a6a6;
}
```

```
input::placeholder {
    color: var(--text-color);
    opacity: 0.6;
}
```

```
input[type="checkbox"] {
    cursor: pointer;
    height: auto;
}
```

```
.table-container {
    overflow: auto;
```



```
    scroll-behavior: smooth;

    scrollbar-color: var(--border-color) transparent;

    width: 100%;

    box-shadow: 3px 2px 10px var(--shadow-color);

    background: var(--card-bg);

    border: 1px solid var(--border-color);

    scrollbar-width: thin;

}
```

```
.table-container tr {

    height: auto;

    min-height: 40px;

}
```

```
table {

    background-color: var(--table-bg);

    border-radius: 10px;

    border-collapse: collapse;

    color: var(--table-text);

    width: 100%;

    min-width: 1400px;

    table-layout: fixed;

}
```

```
thead {

    position: sticky;

    top: 0;
```

```
background-color: var(--table-header-bg);
color: var(--text-color);
text-align: center;
font-size: 14px;
z-index: 10;
}

tbody {
  overflow-y: auto;
  width: 100%;
  scrollbar-width: thin;
  background-color: var(--table-bg);
  color: var(--table-text);
  font-weight: 600;
}

tr th {
  padding: 0.5rem;
}

tr th i {
  cursor: pointer;
  margin-left: 0.5rem;
  font-size: 18px;
}

table tr td {
  border-bottom: 1px solid var(--border-color);
```

```
padding: 0.8rem;
font-size: 14px;
text-align: center;
word-wrap: break-word;
}

tr:hover {
    background-color: var(--hover-bg);
}

th:first-child,
td:first-child {
    background-color: var(--table-header-bg);
    position: sticky;
    left: 0;
    top: 0;
    z-index: 1;
    width: 100px;
}

th:first-child::after,
td:first-child::after {
    content: "";
    position: absolute;
    top: 0;
    right: -5px;
    width: 5px;
    height: 100%;
```

```
background: linear-gradient(to right, rgba(0, 0, 0, 0.05), transparent);  
pointer-events: none;  
}
```

```
.btn-cd {  
padding: 0.4rem 0.8rem;  
border-radius: 5px;  
border: none;  
background-color: #4f8091;  
color: white;  
cursor: pointer;  
font-size: 14px;  
font-weight: 600;  
text-decoration: none;  
}
```

```
.btn-cd i {  
font-size: 12px;  
margin-right: 5px;  
}
```

```
.cancel,  
.uc {  
margin: 1rem 0;  
}
```

```
.add {  
background: linear-gradient(135deg, #4f8091, #2b5a68);
```

```
}
```

```
.dlt {
```

```
    background: linear-gradient(135deg, #e37272, #c94b4b);
```

```
}
```

```
.cancel {
```

```
    background-color: var(--card-bg);
```

```
    color: var(--text-color);
```

```
    border: 1px solid #c8c8c8;
```

```
}
```

```
.btn-ed {
```

```
    background: transparent;
```

```
    border: none;
```

```
    cursor: pointer;
```

```
    margin: 0 0.3rem;
```

```
}
```

```
.btn-ed i {
```

```
    font-size: 14px;
```

```
}
```

```
.delete {
```

```
    color: #d84949;
```

```
}
```

```
.edit {
```

```
    color: var(--text-color);
```

```
}
```

```
button i {  
    font-size: 12px;  
}
```

```
.decision {  
    display: flex;  
    width: 100%;  
    gap: 1rem;  
}
```

```
.decision button {  
    width: 100%;  
}
```

```
#close-btn {  
    cursor: pointer;  
    position: absolute;  
    top: 2rem;  
    right: 2rem;  
    color: var(--text-color);  
    font-size: 20px;  
}
```

```
.btn-filter {  
    border: 1px solid var(--search-border);  
    background: transparent;  
    color: var(--text-color);  
    opacity: 0.8;
```

```
border-radius: 5px;
padding: 0.3rem 1rem;
font-size: 14px;
font-weight: 600;
}
```

```
.btn-filter i {
  font-size: 14px;
}
```

```
.advanced-filters button {
  float: right;
}
```

```
.filter {
  margin: 1rem;
}
```

```
.btn-cd:hover,
.btn-filter:hover {
  scale: 1.03;
}
```

```
.advanced-filters,
.customize-column {
  position: absolute;
  top: 100%;
  left: 12rem;
```

```
    z-index: 1000;
    padding: 1rem;
    background: var(--table-header-bg);
    color: var(--text-color);
    border: 1px solid #ccc;
    border-radius: 8px;
    box-shadow: 0 4px 8px rgba(0, 0, 0, 0.4);
    margin-top: 0.4rem;
}
```

```
.close-modal {
    position: absolute;
    top: 0.5rem;
    right: 1rem;
    cursor: pointer;
}
```

```
.filter-section {
    display: flex;
    flex-direction: column;
    gap: 0.5rem;
}
```

```
.filter-dept,
.filter-skill,
.custom-column {
    display: grid;
    grid-template-columns: 1fr 1fr 1fr;
```



```
    gap: 1rem;
    margin: 0.5rem;
}
```

```
.title-cont {
    display: flex;
    justify-content: center;
    align-items: center;
}
```

```
.search-dlt-cont {
    width: 98%;
    display: flex;
    justify-content: space-between;
    align-items: center;
    margin: 1rem;
}
```

```
.search-dlt-cont span {
    font-size: 20px;
    font-weight: 700;
    color: var(--text-color);
}
```

```
.search-cont {
    display: flex;
    align-items: center;
    border: 1px solid var(--search-border);
}
```

```
border-radius: 5px;

width: 40%;

background-color: var(--input-bg);

padding: 0 1rem;
}
```

```
.search-cont i {

font-size: 14px;

margin-right: 8px;

color: var(--text-color);

opacity: 0.7;
}
```

```
#search {

flex: 1;

border: none;

background: transparent;

color: var(--text-color);

padding: 0.3rem;

min-width: 120px;
}
```

```
.search-cont .ember-power-select-trigger {

background: transparent !important;

border: none !important;

height: 40px !important;

overflow-y: scroll !important;

scrollbar-width: none !important;
```

```
    min-width: 100px !important;
}
```

```
.search-cont .ember-power-select-multiple-option {
    background-color: var(--hover-bg) !important;
    color: var(--text-color) !important;
    border: none !important;
    margin: 0.5rem 0.2rem !important;
    padding: 0 8px !important;
    font-size: 10px !important;
    border-radius: 20px !important;
    font-weight: 500 !important;
    display: inline-flex;
    align-items: center;
    gap: 4px;
    box-shadow: 0 1px 3px rgba(0, 0, 0, 0.1);
}
```

```
.search-cont .ember-power-select-placeholder {
    font-size: 12px !important;
    font-weight: 400 !important;
    opacity: 0.7 !important;
    color: var(--text-color) !important;
    margin: 0.5rem 0 !important;
}
```

```
.ember-power-select-multiple-remove-btn {
    font-size: 16px !important;
```

```
}
```

```
.search-cd-cont {
```

```
  display: flex;
```

```
  justify-content: flex-end;
```

```
  width: 80%;
```

```
  gap: 0.5rem;
```

```
  position: relative;
```

```
  height: 35px;
```

```
}
```