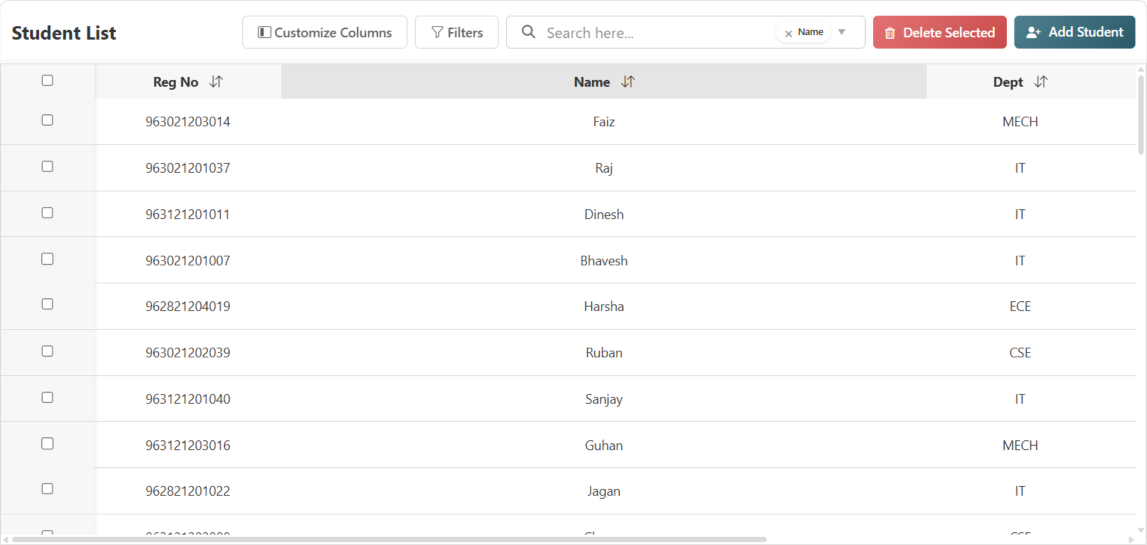
OUTPUT:

Preserve resized column widths and column order even after a page refresh.



□	Reg No ⇅	Name ⇅	Dept ⇅
□	963021203014	Faiz	MECH
□	963021201037	Raj	IT
□	963121201011	Dinesh	IT
□	963021201007	Bhavesh	IT
□	962821204019	Harsha	ECE
□	963021202039	Ruban	CSE
□	963121201040	Sanjay	IT
□	963121203016	Guhan	MECH
□	962821201022	Jagan	IT

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-Evv84Mr4kqVGRNSgIGL/F/aIDqQb7xQ2vcrdIwxfjThSH8CSR7PBEakCr51Ck+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">
    <link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap-icons@1.11.3/font/bootstrap-icons.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 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 { 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 = '';

DEFAULT_COLUMNS = [
  { key: 'reg', label: 'Reg No' },
  { key: 'name', label: 'Name' },
  { key: 'dept', label: 'Department' },
  { key: 'skills', label: 'Skills' },
  { key: 'clg', label: 'College' }
];

@tracked items = this.loadSavedColumns();

loadSavedColumns() {
  try {
    const saved = localStorage.getItem('studentColumns');
    return saved ? JSON.parse(saved) : this.DEFAULT_COLUMNS;
  } catch (e) {
    console.error('Failed to load saved columns', e);
    return this.DEFAULT_COLUMNS;
  }
```

```
}

@action reorderItems(itemModels) {
  this.items = itemModels;
  this.saveColumns();
}

saveColumns() {
  try {
    localStorage.setItem('studentColumns', JSON.stringify(this.items));
  } catch (e) {
    console.error('Failed to save columns', e);
  }
}

@action resetColumns() {
  this.items = [...this.DEFAULT_COLUMNS];
  this.saveColumns();
}

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

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

```
}

@action makeResizable(th) {
  let resizer = th.querySelector('.resizer');
  if (!resizer) return;

  const key = th.getAttribute('data-key');
  const minWidth = 100;

  let savedWidth = localStorage.getItem(`col-width-${key}`);
  if (savedWidth) {
    th.style.width = `${savedWidth}px`;
  }

  let startX, startWidth;

  const onMouseDown = (e) => {
    startX = e.pageX;
    startWidth = th.offsetWidth;

    document.addEventListener('mousemove', onMouseMove);
    document.addEventListener('mouseup', onMouseUp);
  };

  const onMouseMove = (e) => {
    let diff = e.pageX - startX;
    let newWidth = startWidth + diff;
    if (newWidth < minWidth) return;
    th.style.width = `${newWidth}px`;
  };

  const onMouseUp = () => {
    const finalWidth = th.offsetWidth;
    localStorage.setItem(`col-width-${key}`, finalWidth);

    document.removeEventListener('mousemove', onMouseMove);
    document.removeEventListener('mouseup', onMouseUp);
  };

  resizer.addEventListener('mousedown', onMouseDown);
}


@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(key => {
    return this.items.find(opt => opt.key === key);
  }).filter(Boolean);
}

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

  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 succcessfully!'));
  }

  @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 succcessfully!'));
  }

  @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>
 </span>

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

          <span class="resizer"></span>
        </th>
        {{/if}}
        {{/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}}
      {{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: #f7f7f7;
    --table-header-hover: #e5e5e5;
    --table-text: #3e3e3e;
    --border-color: #dadada;
    --shadow-color: rgba(0, 0, 0, 0.1);
    --navbar-bg: #ffffff;
    --hover-bg: #f7f7f7;
    --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-header-hover: #3d3d3d;

    --table-text: #e0e0e0;

    --border-color: #3b3b3b;

    --shadow-color: rgba(0, 0, 0, 0.6);

    --navbar-bg: #2e2e2e;

    --hover-bg: #262626;

    --search-border: #555555;

}


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;
}

.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;
}

.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: max-content;
    min-width: 1200px;
    table-layout: auto;
}

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);

}


tr th {

    padding: 0.5rem;

    margin: 0;

    position: relative;

}


th:not(:first-child) {

    min-width: 200px;

  }




th:hover {

    background-color: var(--table-header-hover);

}
```

```
tr th i {
   cursor: pointer;
   margin-left: 0.5rem;
   font-size: 14px;
}

th.resizable {
   position: relative;
   user-select: none;
}

th.resizable .resizer {
   position: absolute;
   right: 0;
   top: 0;
   width: 6px;
   color: black;
   height: 100%;
   cursor: ew-resize;
   z-index: 1;
}

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%;
    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;
}

ul {
    list-style: none;
    padding: 0;
    margin: 0;
}

ul li {
    margin: 0;
    padding-left: 0;
}

ul li div {
    display: flex;
    justify-content: space-between;
    padding: 0.3rem 1rem;
}

.advanced-filters {
    left: 12rem;
```

```
}

.customize-column {
    left: 0.5rem;
    width: 400px;
}

.customize-column-header {
    display: flex;
    align-items: center;
    justify-content: flex-end;
    gap: 4rem;
    padding-right: 1rem;
    width: 100%;
}

.customize-column-rc {
    display: flex;
    justify-content: flex-end;
    align-items: center;
    gap: 1rem;
}

.customize-column p {
    color: var(--text-color);
    opacity: 0.8;
    font-size: 14px;
    font-weight: 600;
```

```
}

.close-modal i {
   cursor: pointer;
   font-size: 20px;
}

.btn-reset {
   border: none;
   border-radius: 5px;
   background-color: #d84949;
   color: white !important;
   padding: 0.2rem 0.5rem;
   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;
    height: 33px;
}

.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: 34px !important;
    overflow-y: scroll !important;
    scrollbar-width: none !important;
    max-width: 170px !important;
}

.search-cont .ember-power-select-multiple-option {
    background-color: var(--table-bg) !important;
    color: var(--text-color) !important;
    border: none !important;
    margin: 0.3rem !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;
    padding: 0.3rem 0.7rem;
}

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

```
}


.search-cd-cont {
   display: flex;
   justify-content: flex-end;
   align-items: center;
   width: 80%;
   gap: 0.5rem;
   position: relative;
}
```