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ФАКУЛЬТЕТ ИНФОРМАТИКА И СИСТЕМЫ УПРАВЛЕНИЯ

КАФЕДРА СИСТЕМЫ ОБРАБОТКИ ИНФОРМАЦИИ И УПРАВЛЕНИЯ

Отчет по домашнему заданию

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#### Задание:

Необходимо доработать ваше приложение из лабораторной работы №7 или №8. Необходимо решить следующие задачи:

## Модифицировать базу данных:

База данных должна содержать основную таблицу (например, "акции") и вторую таблицу (например, "компания акции").

Основная таблица ссылается через внешний ключ на вторую таблицу.

## Доработать веб-сервис:

Добавить в веб-сервис новый метод получения списка значений из второй таблицы.

# Доработать фронтенд:

Добавить на страницу с данными основной таблицы кнопки добавления, редактирования и удаления значений через API сервиса. Для добавления и редактирования использовать страницу отображения конкретного объекта.

На всех страницах должны отображаться значения из таблиц вместо идентификаторов.

На странице отображения конкретного объекта необходимо использовать компонент combobox (выпадающий список). Необходимо использовать в этом компоненте новый метод веб-сервиса для второй таблицы.

#### Текст программы:

client/:

api/types/:

ManufacturerType.ts:

```
export type ManufacturerType = {
  pk: number;
  name: string;
  adress: string;
  email: string;
};
```

## ProductType.ts:

```
import { ManufacturerType } from './ManufacturerType';

export type ProductType = {
   pk: number;
   name: string;
   price: number;
   weight: number;
   imgSrc: string;
   quantity: number;
   description?: string;
   id_manufacturer: number;
   manufacturer?: ManufacturerType;
};
```

api/product/:

addProduct.ts:

```
import { ProductType } from 'api/types';

export const addProduct = async (values: Partial<ProductType>) => {
  const body = new FormData();
  for (const [key, value] of Object.entries(values)) {
    body.append(key, value.toString());
  }
  const data = await fetch('http://127.0.0.1:8000/product/', {
```

```
method: 'POST',
  body: body,
});
if (data.ok) {
  return true;
} else {
  return false;
}
};
```

## getProductById.ts:

```
import { ProductType } from 'api/types';

export const getProductById = async (id: number) => {
    const data = await fetch(`http://127.0.0.1:8000/product/${id}`, {
        headers: {
            'Content-Type': 'json/application',
        },
    });
    if (data.ok) {
        const parsedData: ProductType = await data.json();
        return parsedData;
    } else {
        return undefined;
    }
};
```

#### getProducts.ts:

```
import { ProductType } from 'api/types';

export const getProducts = async () => {
   const data = await fetch('http://127.0.0.1:8000/product', {
    headers: {
        'Content-Type': 'json/application',
      },
   });
   if (data.ok) {
      const parsedData: ProductType[] = await data.json();
      return parsedData;
   } else {
      return undefined;
   }
};
```

## removeProductById.ts:

```
export const removeProductById = async (id: number) => {
   const data = await fetch(`http://127.0.0.1:8000/product/${id}`, {
    method: 'DELETE',
   headers: {
        'Content-Type': 'json/application',
      },
   });
   if (data.ok) {
      return true;
   } else {
      return false;
   }
};
```

# updateProductById.ts:

```
import { ProductType } from 'api/types';
export const updateProductById = async (
  id: number,
  values: Partial<ProductType>,
) => {
 const body = new FormData();
 for (const [key, value] of Object.entries(values)) {
   if (value) {
      body.append(key, value.toString());
  const data = await fetch(`http://127.0.0.1:8000/product/${id}`, {
   method: 'PUT',
   body: body,
  });
 if (data.ok) {
   return true;
  } else {
   return false;
};
```

# api/manufacturer/: addManufacturer.ts

```
import { ManufacturerType } from 'api/types';

export const addManufacturer = async (values: Partial<ManufacturerType>) => {
   const body = new FormData();
   for (const [key, value] of Object.entries(values)) {
      body.append(key, value.toString());
   }
   const data = await fetch('http://127.0.0.1:8000/manufacturer/', {
      method: 'POST',
      body: body,
   });
   if (data.ok) {
      return true;
   } else {
      return false;
   }
};
```

#### getManufacturer.ts:

```
import { ManufacturerType } from 'api/types';

export const getManufacturer = async () => {
    const data = await fetch('http://127.0.0.1:8000/manufacturer', {
        headers: {
            'Content-Type': 'json/application',
        },
    });
    if (data.ok) {
        const parsedData: ManufacturerType[] = await data.json();
        return parsedData;
    } else {
        return undefined;
    }
};
```

## getManufacturerById.ts:

```
import { ManufacturerType } from 'api/types';

export const getManufacturerById = async (id: number) => {
  const data = await fetch(`http://127.0.0.1:8000/manufacturer/${id}`, {
```

```
headers: {
    'Content-Type': 'json/application',
  },
});
if (data.ok) {
    const parsedData: ManufacturerType = await data.json();
    return parsedData;
} else {
    return undefined;
}
};
```

#### removeManufacturerById.ts:

```
export const removeManufacturerById = async (id: number) => {
  const data = await fetch(`http://127.0.0.1:8000/manufacturer/${id}`, {
    method: 'DELETE',
    headers: {
        'Content-Type': 'json/application',
      },
    });
  if (data.ok) {
    return true;
  } else {
    return false;
  }
};
```

## updateManufacturerById.ts:

```
import { ManufacturerType } from 'api/types';

export const updateManufacturerById = async (
   id: number,
   values: Partial<ManufacturerType>,
) => {
   const body = new FormData();
   for (const [key, value] of Object.entries(values)) {
      body.append(key, value.toString());
   }
   const data = await fetch(`http://127.0.0.1:8000/manufacturer/${id}`, {
      method: 'PUT',
      body: body,
   });
   if (data.ok) {
      return true;
}
```

```
} else {
    return false;
}
```

#### components/:

Button/:

Button.style.tsx:

```
import { Colors } from 'constants/colors';
import styled from 'styled-components';
import { ButtonProps } from './Button.types';
export const Button = styled.button<ButtonProps>`
  background-color: ${({ backgroundColor }) =>
    backgroundColor || 'transparent'};
  padding: ${({ round }) => (round ? '5px 5px' : '10px 16px')};
  border: 1px solid ${({ backgroundColor }) => backgroundColor || 'transparent'};
  border-radius: 16px;
  cursor: pointer;
  color: ${Colors.TEXT_MAIN_COLOR};
  font-family: Roboto;
  font-size: 14px;
  font-weight: 400;
  &:hover {
    border-color: ${({ backgroundColor, backgroundHoverColor }) =>
      backgroundHoverColor
        ? backgroundHoverColor
        : backgroundColor || 'transparent'};
    background-color: ${({ backgroundColor, backgroundHoverColor }) =>
      backgroundHoverColor
        ? backgroundHoverColor
        : backgroundColor || 'transparent'};
```

## Button.types.tsx:

```
export type ButtonProps = {
  backgroundColor?: string;
  backgroundHoverColor?: string;
```

```
round?: boolean;
};
```

#### Card/:

## Card.styles.tsx:

```
import { Colors } from 'constants/colors';
import styled from 'styled-components';

export const CardWrapper = styled.div`
    display: flex;
    flex: 1 0 26%;
    position: relative;
    height: 300px;
    border: 1px solid ${Colors.BORDER_MAIN};
    border-radius: 16px;
    margin: 26px;
    padding: 20px;
    flex-direction: column;
    justify-content: space-between;
    align-items: center;
    background-color: ${Colors.CARD_MAIN};

`;
```

#### Card.tsx:

```
import { Colors } from 'constants/colors';
import React, { useCallback } from 'react';
import { useNavigate } from 'react-router';
import { removeProductById } from 'api';
import { ReactComponent as IcClose } from 'assets/icons/close.svg';
import { Button } from 'components/Button';
import { Image } from 'components/Image';
import { StyledLink } from 'components/StyledLink/StyledLink.style';
import { Text } from 'components/Text';
import { CardWrapper } from './Card.styles';
import { CardProps } from './Card.types';
import { CardNavbar } from './CardNavbar';
export const Card = ({ data, onRemove, detailed }: CardProps): JSX.Element => {
 const handleRemoveCard = useCallback(async () => {
    await removeProductById(data.pk);
    if (onRemove) {
      onRemove();
```

```
}, []);
const navigator = useNavigate();
const handleManfClick = useCallback(() => {
  const params = new URLSearchParams();
  params.append('manf', data.id_manufacturer.toString());
  navigator({ search: params.toString() });
}, []);
return (
 <CardWrapper>
   <CardNavbar>
      <Button round onClick={handleRemoveCard}>
        <IcClose width={16} height={16} />
      </Button>
    </CardNavbar>
    <Image src={data.imgSrc}></Image>
    <Text bold>{data.name}</Text>
    <Text>Количество: {data.quantity} шт.</Text>
    <Text>Стоимость: {data.price} pyб.</Text>
    <Text>Bec: {data.weight} rp.</Text>
    {detailed && (
    <Text>Описание: {data.description}</Text>
    )}
    <div style={{ display: 'flex', alignItems: 'center' }}>
      <Text style={{ paddingRight: '10px' }}>
        Показать: {data.manufacturer?.name}
      </Text>
      <Button
        backgroundColor={Colors.MAIN}
        backgroundHoverColor={Colors.MAIN HOVERED}
        onClick={handleManfClick}
        Перейти
      </Button>
    </div>
    {!detailed ? (
      <StyledLink to={\`/product/${data.pk}\`}>
          backgroundColor={Colors.MAIN}
          backgroundHoverColor={Colors.MAIN_HOVERED}
          Открыть
        </Button>
      </StyledLink>
      <StyledLink to={\ref{\product/\${data.pk}/edit\}}
          backgroundColor={Colors.MAIN}
          backgroundHoverColor={Colors.MAIN HOVERED}
```

Card.types.tsx:

```
import { ProductType } from 'api/types';

export type CardProps = {
   data: ProductType;
   onRemove?: () => void;
   detailed?: boolean;
};
```

CardNavbar/:

CardNavbar.styles.tsx:

```
import styled from 'styled-components';

export const CardNavbar = styled.div`
  position: absolute;
  top: 5px;
  right: 5px;
`;
```

fields/:

CustomField/:

CustomField.styles.tsx:

```
import styled from 'styled-components';

export const CustomInput = styled.input`
  background: transparent;
  border: 1px solid #c8c8c8;
  padding: 8px 16px;
  border-radius: 16px;
  color: white;
  height: 20px;

&::placeholder {
    color: #bfbfbf;
  }
```

```
&:hover {
    background: #43484b;
}

&:focus {
    background: #4e5457;
}

;

export const ErrorMessage = styled.p`
font-size: 10px;
color: red;
margin: 0;
margin-top: 4px;

;
```

#### CustomField.tsx:

```
import React from 'react';
import { Field } from 'react-final-form';
import { CustomInput, ErrorMessage } from './CustomField.styles';
import { CustomInputFieldProps } from './CustomField.types';
export const CustomField = <T extends string | number>(
  props: CustomInputFieldProps<T>,
): JSX.Element => {
  const { required, ...inputProps } = props;
 return (
    <Field<T> {...inputProps}>
      {({ input: { value, onChange, onFocus, onBlur }, meta: { touched } }) => (
        <div style={{ display: 'flex', flexDirection: 'column' }}>
         <CustomInput
           value={value}
           onInput={onChange}
           onFocus={onFocus}
           onBlur={onBlur}
           {...inputProps}
         {required && !value && touched && (
           <ErrorMessage>Обязательное поле
          )}
        </div>
      )}
    </Field>
  );
```

#### CustomField.types.ts

```
import { FieldProps, FieldRenderProps } from 'react-final-form';

export type CustomInputFieldProps<T extends string | number> = FieldProps<
T,
    FieldRenderProps<T, HTMLElement, T>,
    HTMLElement,
    T
> &
    Omit<
        FieldProps<T, FieldRenderProps<T, HTMLElement, T>, HTMLElement, T>,
        'children'
> & {
        name: string;
        required?: boolean;
    };
```

#### CustomSelector/:

#### CustomSelector.tsx:

```
import React, { useCallback, useEffect, useState } from 'react';
import { Field } from 'react-final-form';
import Select, {
  ActionMeta,
  MultiValue,
  SingleValue,
  StylesConfig,
} from 'react-select';
import { CustomInputFieldProps, Option } from './CustomSeletor.types';
export const CustomSelector = (
  props: CustomInputFieldProps<Option>,
): JSX.Element => {
  const { required, options, ...inputProps } = props;
  const Styles: StylesConfig<</pre>
    Option,
    boolean,
    Record<string, string> & { options: Option[] }
    container: (provided) => ({
      ...provided,
      width: 201,
    }),
    singleValue: (provided) => ({
      ...provided,
      color: 'white',
```

```
menuList: (provided) => ({
  ...provided,
  padding: 0,
}),
menu: (state) => ({
  width: 199,
  position: 'absolute',
  padding: 0,
  backgroundColor: 'transparent',
  borderRadius: 4,
  zIndex: 10,
  border: `1px solid #c8c8c8`,
option: (provided, state) => ({
  ...provided,
  boxShadow: 'none',
 maxWidth: 193,
  fontWeight: 12,
  color: 'white',
 whiteSpace: 'nowrap',
  textOverflow: 'ellipsis',
  overflow: 'hidden',
  borderRadius: 4,
  cursor: 'pointer',
  border: `1px solid #c8c8c8`,
  backgroundColor: '#181a1b',
  ':hover': {
    backgroundColor: '#43484b',
  },
}),
dropdownIndicator: (provided, state) => ({
  transition: 'transform 1s ease',
  transform: state.selectProps.menuIsOpen ? 'rotate(180deg)' : 'none',
  width: 20,
  height: 20,
}),
control: (provided, state) => ({
  ...provided,
  width: 203,
 height: 33,
  padding: 0,
  backgroundColor: 'transparent',
  borderRadius: 16,
  boxShadow: 'none',
  cursor: state.selectProps.menuIsOpen ? 'text' : 'pointer',
  border: `1px solid #c8c8c8`,
  ':hover': {
    border: `1px solid #c8c8c8`,
```

```
}),
  input: (provided) => ({
    ...provided,
    width: 156,
    fontWeight: 12,
    color: 'white',
  }),
  placeholder: (provided) => ({
    ...provided,
    fontWeight: 12,
    color: '#bfbfbf',
  }),
};
const [currentValue, setValue] = useState<Option>();
useEffect(() => {
  setValue(inputProps.initialValue);
}, [inputProps.initialValue]);
return (
  <Field<Option> {...inputProps}>
    {({ input: { onChange, onFocus, onBlur } }) => {
      const handleChange = useCallback(
          newValue: SingleValue<Option> | MultiValue<Option>,
          actionMeta: ActionMeta<Option>,
          onChange(newValue as Option);
          setValue(newValue as Option);
        },
        [],
      );
      return (
        <div style={{ display: 'flex', flexDirection: 'column' }}>
          <Select
            styles={Styles}
            onChange={handleChange}
            isSearchable
            isClearable
            onFocus={onFocus}
            onBlur={onBlur}
            maxMenuHeight={120}
            placeholder={props.placeholder}
            options={options}
            {...inputProps}
            value={currentValue}
        </div>
      );
```

```
</Field>
);
};
```

#### CustomSelector.types.ts:

```
import { FieldProps, FieldRenderProps } from 'react-final-form';
export type Option = {
 value: number;
 label: string;
};
export type CustomInputFieldProps<T extends Option> = FieldProps
 FieldRenderProps<T, HTMLElement, T>,
 HTMLElement,
> &
 Omit<
   FieldProps<T, FieldRenderProps<T, HTMLElement, T>, HTMLElement, T>,
    'children'
  > & {
   required?: boolean;
   options?: Array<Option>;
  };
```

Image/:

#### Image.styles.tsx:

```
import styled from 'styled-components';

export const Image = styled.img`
  width: 140px;
  height: 140px;
  border-radius: 16px;
`;
```

Navbar/:

## Navbar.styles.tsx:

```
import { Colors } from 'constants/colors';
import styled from 'styled-components';
```

```
export const NavbarWrapper = styled.div`
  display: flex;
  flex-direction: row;
  justify-content: left;
  align-items: center;
  width: 100%;
  border: 1px solid ${Colors.BORDER_MAIN};
  height: 50px;
  background-color: ${Colors.BODY_MAIN};
  ;
}
```

#### Navbar.tsx:

```
import React, { ChangeEvent, useCallback } from 'react';
import { Field, Form } from 'react-final-form';
import { URLSearchParamsInit } from 'react-router-dom';
import { Button } from 'components/Button';
import { CustomInput } from 'components/fields/CustomField.styles';
import { StyledLink } from 'components/StyledLink/StyledLink.style';
import { NavbarWrapper } from './Navbar.styles';
export type NavbarProps = {
  detailed?: boolean;
  onChange?: (
    nextInit: URLSearchParamsInit,
    navigateOptions?:
         replace?: boolean | undefined;
         state?: any;
      undefined,
  ) => void;
};
export const Navbar = ({ detailed, onChange }: NavbarProps) => {
  const onFilter = useCallback((event: ChangeEvent<HTMLInputElement>) => {
   onChange && onChange({ productName: event.target.value });
  }, []);
  return (
   <NavbarWrapper>
     <StyledLink to="/product">
       <Button>Главная</Button>
     </StyledLink>
      <StyledLink to="/manufacturer">
        <Button>Производители</Button>
      </StyledLink>
```

```
<StyledLink to="/product/add">
        <Button>Добавить товар</Button>
     </StyledLink>
     <StyledLink to="/manufacturer/add">
        <Button>Добавить производителя
     </StyledLink>
     {detailed && (
        <div style={{ display: 'flex', justifyContent: 'center ' }}>
          <Form
            onSubmit={() => {
           }}
           render={() => (
              <Field name="name">
               {({ input }) => (
                  <CustomInput
                    {...input}
                    placeholder="Поиск по сайту..."
                    onChange={(e) => {
                      input.onChange(e);
                      onFilter(e);
                    }}
                )}
              </Field>
            )}
       </div>
     )}
   </NavbarWrapper>
 );
};
```

StyledForm/:

StyledForm.styles.tsx:

```
import { Colors } from 'constants/colors';
import styled from 'styled-components';

export const StyledForm = styled.form`
  border-radius: 16px;
  width: 500px;
  margin: auto;
  display: flex;
  align-items: center;
  flex-direction: column;
  padding: 20px;
  border: 1px solid ${Colors.BORDER_MAIN};
  background-color: ${Colors.BODY_MAIN};
  justify-content: space-between;
```

```
`;
```

StyledLink/:

StyledLink.styles.tsx:

```
import { Link } from 'react-router-dom';
import styled from 'styled-components';

export const StyledLink = styled(Link)`
  text-decoration: none;

&:focus,
  &:hover,
  &:visited,
  &:link,
  &:active {
    text-decoration: none;
  }
`;
```

Text/:

Text.styles.tsx:

```
import { Colors } from 'constants/colors';
import styled from 'styled-components';
import { TextProps } from './Text.types';
export const Text = styled.p<TextProps>`
  color: ${Colors.TEXT_MAIN_COLOR};
  font-family: Roboto;
  font-size: 16px;
  font-weight: ${({ bold }) => (bold ? '800' : '600')};

  margin: 0;
`;
```

## Text.types.tsx:

```
export type TextProps = {
  bold?: boolean;
};
```

#### constants/:

colors.ts:

```
export enum Colors {
    MAIN = '#CC6600',
    MAIN_HOVERED = '#FF9933',

    TEXT_MAIN_COLOR = 'white',

    BODY_MAIN = '#330000',
    CARD_MAIN = '#330000',
    BORDER_MAIN = 'black',

ALERT = '#cc0a24',
    ALERT_HOVERED = '#ad0219',
}
```

#### pages/:

PageAddProduct/:

PageAddProduct.styles.tsx:

```
import { Colors } from 'constants/colors';
import styled from 'styled-components';

export const InputWrapper = styled.div`
    display: flex;
    width: 100%;
    color: ${Colors.TEXT_MAIN_COLOR};
    font-family: Roboto;
    font-size: 14px;
    font-weight: 400;
    justify-content: space-between;
    align-items: center;
    height: auto;
`;
```

#### PageAddProduct.tsx:

```
import React, { useCallback, useEffect, useState } from 'react';
import { Form } from 'react-final-form';
import { TailSpin } from 'react-loader-spinner';
import { getManufacturer } from 'api/manufacturer';
import { addProduct } from 'api/product';
```

```
import { ProductType } from 'api/types';
import { Button } from 'components/Button';
import { CustomField } from 'components/fields/CustomField';
import { CustomSelector } from 'components/fields/CustomSelector';
import { Option } from 'components/fields/CustomSelector/CustomSeletor.types';
import { Navbar } from 'components/Navbar/Navbar';
import { StyledForm } from 'components/StyledForm/StyledForm.styles';
import { sleep } from 'utils/sleep';
import { InputWrapper } from './PageAddProduct.styles';
import 'react-loader-spinner/dist/loader/css/react-spinner-loader.css';
export const PageAddHotel = () => {
  const [loading, setLoading] = useState(false);
 const [manufacturers, setManufacturers] = useState<Option[] | undefined>(
   undefined,
 );
 useEffect(() => {
   setLoading(true);
   getManufacturer().then(async (values) => {
     if (values) {
       await sleep(500);
       const options = values.map((val) => ({
         value: val.pk,
         label: val.name,
        }));
       setManufacturers(options);
      setLoading(false);
   });
  }, []);
 const onSubmit = useCallback(
   async (
     values: Record<string, string | Record<string, string | number>>,
    ) => {
     setLoading(true);
     if (!values['name']) {
       return { error: 'error' };
      const manufacturer = values['manufacturer'] as Record<string, number>;
      const newValues: Partial<ProductType> = {
        ...values,
        id_manufacturer: manufacturer['value'],
```

```
return addProduct(newValues).then(async (value) => {
      if (value) {
        await sleep(2000);
      } else {
        console.error('Error while POST hotel fetch');
      setLoading(false);
   });
  },
 [],
);
return (
   <Navbar />
   <Form
      onSubmit={onSubmit}
      validate={(values) => {
        const errors: Record<string, string> = {};
        if (!values.name) {
          errors.name = 'Required';
        return errors;
      render={({ submitting, form, handleSubmit }) =>
        loading ? (
          <div style={{ position: 'absolute', top: '50%', left: '50%' }}>
            <TailSpin arialLabel="loading-indicator" />
          </div>
          <StyledForm</pre>
            onSubmit={async (event) => {
              await handleSubmit(event);
              form.reset();
            }}
            <InputWrapper>
              <label htmlFor="name">Название</label>
              <CustomField
                name="name"
                type="text"
                component="input"
                placeholder="Название"
                required
            </InputWrapper>
            <InputWrapper>
              <label htmlFor="price">Стоимость</label>
              <CustomField
                name="price"
```

```
type="text"
    component="input"
    placeholder="Стоимость"
</InputWrapper>
<InputWrapper>
  <label htmlFor="imgSrc">Ссылка на изображение</label>
 <CustomField
    name="imgSrc"
    type="text"
    component="input"
    placeholder="Ссылка"
</InputWrapper>
<InputWrapper>
 <label htmlFor="manufacturer">Производитель</label>
 <CustomSelector
    name="manufacturer"
    placeholder="Выберите..."
    component="input"
    options={manufacturers}
</InputWrapper>
<InputWrapper>
  <label htmlFor="weight">Bec</label>
 <CustomField
    name="weight"
    type="text"
    component="input"
    placeholder="Bec"
</InputWrapper>
<InputWrapper>
 <label htmlFor="description">Описание</label>
 <CustomField
    name="description"
    type="text"
    component="textarea"
    placeholder="Описание..."
</InputWrapper>
<InputWrapper>
  <label htmlFor="quantity">Количество</label>
 <CustomField
    name="quantity"
    type="text"
    component="input"
    placeholder="Количество"
</InputWrapper>
<Button type="submit" disabled={submitting}>
```

#### PageAddManufacturer/:

## PageAddManufacturer.styles.tsx:

```
import { Colors } from 'constants/colors';
import styled from 'styled-components';

export const InputWrapper = styled.div`
    display: flex;
    width: 100%;
    color: ${Colors.TEXT_MAIN_COLOR};
    font-family: Roboto;
    font-size: 14px;
    font-weight: 400;
    justify-content: space-between;
    align-items: center;
`;
```

#### PageAddManufacturer.tsx:

```
import React, { useCallback, useState } from 'react';
import { Form } from 'react-final-form';
import { TailSpin } from 'react-loader-spinner';
import { addManufacturer } from 'api';

import { Button } from 'components/Button';
import { CustomField } from 'components/fields/CustomField';
import { Navbar } from 'components/Navbar/Navbar';
import { StyledForm } from 'components/StyledForm/StyledForm.styles';
import { sleep } from 'utils/sleep';

import { InputWrapper } from './PageAddManufacturer.styles';
import 'react-loader-spinner/dist/loader/css/react-spinner-loader.css';

export const PageAddCountry = () => {
    const [loading, setLoading] = useState(false);
```

```
const onSubmit = useCallback(
  async (
   values: Record<string, string | Record<string, string | number>>,
   setLoading(true);
    return addManufacturer(values).then(async (value) => {
      if (value) {
        await sleep(2000);
      } else {
        console.error('Error while POST manufacturer fetch');
     setLoading(false);
    });
  },
 [],
);
return (
    <Navbar />
   <Form
      onSubmit={onSubmit}
      validate={(values) => {
        const errors: Record<string, string> = {};
        if (!values.name) {
          errors.name = 'Required';
        return errors;
      }}
      render={({ submitting, form, handleSubmit }) =>
        loading ? (
          <div style={{ position: 'absolute', top: '50%', left: '50%' }}>
            <TailSpin arialLabel="loading-indicator" />
          </div>
          <StyledForm</pre>
            onSubmit={async (event) => {
              await handleSubmit(event);
              form.reset();
            }}
            <InputWrapper>
              <label htmlFor="name">Название</label>
              <CustomField
                name="name"
                type="text"
                component="input"
                placeholder="Название"
                required
```

```
</InputWrapper>
            <InputWrapper>
              <label htmlFor="email">Email</label>
              <CustomField
                name="email"
                type="text"
                component="input"
                placeholder="e-mail"
            </InputWrapper>
            <InputWrapper>
              <label htmlFor="adress">Адрес</label>
              <CustomField
                name="adress"
                type="text"
                component="input"
                placeholder="Адрес"
            </InputWrapper>
            <Button type="submit" disabled={submitting}>
              Добавить
            </Button>
          </StyledForm>
);
```

# PageManufacterers/:

## PageManufacturers.styles.tsx:

```
import styled from 'styled-components';

export const PageMainWrapper = styled.div`
   display: flex;
   flex-wrap: wrap;
`;
```

# PageManufacturers.tsx:

```
import React, { useCallback, useEffect, useState } from 'react';
import { getManufacturer, getProducts } from 'api';
import { ManufacturerType } from 'api/types';
```

```
import { CountryCard } from 'components/CountryCard';
import { Navbar } from 'components/Navbar/Navbar';
import { PageMainWrapper } from './PageManufacturers.styles';
export const PageCountries = (): JSX.Element => {
  const [manfs, setManf] = useState<ManufacturerType[]>();
  useEffect(() => {
    getManufacturer().then((data) => {
      getProducts().then((products) => {
        const parsedData = data?.filter(
          (elem) =>
            products?.filter((product) => product.id_manufacturer === elem.pk)
        );
        setManf(parsedData);
      });
    });
  }, []);
  const onRemoveClick = useCallback((id: number) => {
    setManf((prev) => prev?.filter((value) => value.pk !== id));
  }, []);
  return (
    <PageMainWrapper>
      <Navbar />
      {manfs?.map((manf) => (
        <CountryCard
          key={manf.pk}
          data={manf}
          onRemove={() => onRemoveClick(manf.pk)}
      ))}
    </PageMainWrapper>
  );
};
```

# PageManufacturer/:

# PageManufacturer.styles.tsx:

```
import styled from 'styled-components';

export const PageCoutnryWrapper = styled.div`
  display: flex;
  flex-wrap: wrap;
```

```
`;
```

#### PageManufacturer.tsx:

```
import React, { useEffect, useState } from 'react';
import { useParams } from 'react-router';
import { getManufacturerById } from 'api';
import { ManufacturerType } from 'api/types';
import { CountryCard } from 'components/CountryCard';
import { Navbar } from 'components/Navbar/Navbar';
import { PageCoutnryWrapper } from './PageManufacturer.styles';
export const PageCountry = (): JSX.Element => {
  const [man, setMan] = useState<ManufacturerType>();
  const { id } = useParams();
 useEffect(() => {
    getManufacturerById(parseInt(id || '0')).then((data) => {
      setMan(data);
    });
  }, [id]);
 if (man) {
   return (
     <PageCoutnryWrapper>
       <Navbar />
        <CountryCard data={man} detailed />
      </PageCoutnryWrapper>
    );
  return <></>;
};
```

# PageEdit/:

# PageEdit.styles.tsx:

```
import { Colors } from 'constants/colors';
import styled from 'styled-components';

export const InputWrapper = styled.div`
   display: flex;
   width: 100%;
   color: ${Colors.TEXT MAIN COLOR};
```

```
font-family: Roboto;
font-size: 14px;
font-weight: 400;
justify-content: space-between;
height: auto;
align-items: center;
;
```

#### PageEdit.tsx:

```
import React, { useCallback, useEffect, useMemo, useState } from 'react';
import { Form } from 'react-final-form';
import { TailSpin } from 'react-loader-spinner';
import { useParams } from 'react-router';
import { useNavigate } from 'react-router-dom';
import { getManufacturer, getProductById, updateProductById } from 'api';
import { ProductType } from 'api/types';
import { Button } from 'components/Button';
import { CustomField } from 'components/fields/CustomField';
import { CustomSelector } from 'components/fields/CustomSelector';
import { Option } from 'components/fields/CustomSelector/CustomSeletor.types';
import { Navbar } from 'components/Navbar/Navbar';
import { StyledForm } from 'components/StyledForm/StyledForm.styles';
import { sleep } from 'utils/sleep';
import { InputWrapper } from './PageEdit.styles';
import 'react-loader-spinner/dist/loader/css/react-spinner-loader.css';
export const PageEdit = () => {
  const [loading, setLoading] = useState(false);
  const [manfs, setManfs] = useState<Option[] | undefined>(undefined);
  const [initialValue, setInitialValue] = useState
    | Record<string, string | number | Record<string, number | string>>
    undefined
  >(undefined);
  const initialManf = useMemo(
    () => initialValue?.manufacturer as Option,
   [initialValue],
  );
  const { id } = useParams();
  const navigate = useNavigate();
  useEffect(() => {
    setLoading(true);
```

```
getManufacturer().then(async (values) => {
    if (values) {
      await sleep(200);
      const options = values.map((val) => ({
        value: val.pk,
       label: val.name,
      }));
      setManfs(options);
      getProductById(parseInt(id || '0')).then(async (data) => {
       if (data) {
          await sleep(200);
          const formData = data as Record
            string,
            string | number | Record<string, number | string>
          formData['manufacturer'] = {
            value: data.manufacturer?.pk || -1,
            label: data.manufacturer?.name || '',
          setInitialValue(formData);
      });
    setLoading(false);
 });
}, [id]);
const onSubmit = useCallback(
 async (
   values: Record<string, string | Record<string, string | number>>,
   setLoading(true);
    if (!values['name']) {
     return { error: 'error' };
   const { manufacturer, ...valuesWithoutOption } = values;
   const manufacturerId = manufacturer as Record<string, string | number>;
   const newValues: Partial<ProductType> = {
      ...valuesWithoutOption,
     id_manufacturer: manufacturerId['value'] as number,
    };
    console.log(JSON.stringify(newValues));
    return updateProductById(parseInt(id || '0'), newValues).then(
      async (value) => {
       if (value) {
          await sleep(2000);
        } else {
```

```
console.error('Error while PUT hotel fetch');
        setLoading(false);
        navigate('/');
     },
    );
  },
 [],
);
return (
    <Navbar />
   <Form
      onSubmit={onSubmit}
      initialValues={initialValue}
      validate={(values) => {
        const errors: Record<string, string> = {};
        if (!values.name) {
          errors.name = 'Required';
        return errors;
      }}
      render={({ submitting, form, handleSubmit }) =>
        loading ? (
          <div style={{ position: 'absolute', top: '50%', left: '50%' }}>
            <TailSpin arialLabel="loading-indicator" />
          </div>
          <StyledForm
            onSubmit={async (event) => {
              await handleSubmit(event);
              form.reset();
            }}
            <InputWrapper>
              <label htmlFor="name">Название</label>
              <CustomField
                name="name"
                type="text"
                component="input"
                placeholder="Название"
                required
            </InputWrapper>
            <InputWrapper>
              <label htmlFor="price">Стоимость</label>
              <CustomField
                name="price"
                type="text"
                component="input"
```

```
placeholder="Стоимость"
</InputWrapper>
<InputWrapper>
 <label htmlFor="imgSrc">Ссылка на изображение</label>
 <CustomField
   name="imgSrc"
   type="text"
   component="input"
   placeholder="Ссылка"
</InputWrapper>
<InputWrapper>
 <label htmlFor="manufacturer">Производитель</label>
 <CustomSelector
   name="manufacturer"
   placeholder="Выберите..."
   component="input"
   options={manfs}
   initialValue={initialManf}
</InputWrapper>
<InputWrapper>
 <label htmlFor="weight">Bec</label>
 <CustomField
   name="weight"
   type="text"
   component="input"
   placeholder="Bec"
</InputWrapper>
<InputWrapper>
 <label htmlFor="description">Описание</label>
 <CustomField
   name="description"
   type="text"
   component="textarea"
   placeholder="Описание..."
</InputWrapper>
<InputWrapper>
 <label htmlFor="quantity">Количество</label>
 <CustomField
   name="quantity"
   type="text"
   component="input"
   placeholder="Количество"
</InputWrapper>
<Button type="submit" disabled={submitting}>
 Обновить
```

## PageEditManufacturer/:

#### PageEditManufacturer.styles.tsx:

```
import { Colors } from 'constants/colors';
import styled from 'styled-components';

export const InputWrapper = styled.div`
    display: flex;
    width: 100%;
    color: ${Colors.TEXT_MAIN_COLOR};
    font-family: Roboto;
    font-size: 14px;
    font-weight: 400;
    justify-content: space-between;
    align-items: center;
`;
```

#### PageEditManufacturer.tsx:

```
import React, { useCallback, useEffect, useState } from 'react';
import { Form } from 'react-final-form';
import { TailSpin } from 'react-loader-spinner';
import { useParams } from 'react-router';
import { useNavigate } from 'react-router-dom';
import { getManufacturerById, updateManufacturerById } from 'api';

import { Button } from 'components/Button';
import { CustomField } from 'components/fields/CustomField';
import { Navbar } from 'components/Navbar/Navbar';
import { StyledForm } from 'components/StyledForm/StyledForm.styles';
import { sleep } from 'utils/sleep';

import { InputWrapper } from './PageEditManufacturer.styles';
import 'react-loader-spinner/dist/loader/css/react-spinner-loader.css';

export const PageEditCountry = () => {
```

```
const [loading, setLoading] = useState(false);
const [initialValue, setInitialValue] = useState
  | Record<string, string | number | Record<string, number | string>>
  undefined
>(undefined);
const { id } = useParams();
const navigate = useNavigate();
useEffect(() => {
 setLoading(true);
 getManufacturerById(parseInt(id || '0')).then(async (data) => {
   if (data) {
     await sleep(200);
     setInitialValue(data);
 });
 setLoading(false);
}, [id]);
const onSubmit = useCallback(
 async (
   values: Record<string, string | Record<string, string | number>>,
   setLoading(true);
   return updateManufacturerById(parseInt(id || '0'), values).then(
      async (value) => {
       if (value) {
         await sleep(2000);
          console.error('Error while PUT man fetch');
       setLoading(false);
       navigate('/');
      },
    );
  },
 [],
);
return (
   <Navbar />
   <Form
      onSubmit={onSubmit}
      initialValues={initialValue}
     validate={(values) => {
        const errors: Record<string, string> = {};
        if (!values.name) {
```

```
errors.name = 'Required';
 return errors;
}}
render={({ submitting, form, handleSubmit }) =>
 loading ? (
   <div style={{ position: 'absolute', top: '50%', left: '50%' }}>
      <TailSpin arialLabel="loading-indicator" />
   </div>
    <StyledForm
      onSubmit={async (event) => {
        await handleSubmit(event);
        form.reset();
      }}
      <InputWrapper>
        <label htmlFor="name">Название</label>
        <CustomField
          name="name"
          type="text"
          component="input"
          placeholder="Название"
          required
      </InputWrapper>
      <InputWrapper>
        <label htmlFor="email">Email</label>
        <CustomField
          name="email"
          type="text"
          component="input"
          placeholder="e-mail"
      </InputWrapper>
      <InputWrapper>
        <label htmlFor="adress">Адрес</label>
        <CustomField
          name="adress"
          type="text"
          component="input"
          placeholder="Адрес"
      </InputWrapper>
      <Button type="submit" disabled={submitting}>
        Обновить
      </Button>
    </StyledForm>
```

```
</>);
};
```

#### PageProduct/:

## PageProduct.tsx:

```
import React, { useEffect, useState } from 'react';
import { useParams } from 'react-router';
import { getProductById } from 'api';
import { ProductType } from 'api/types';
import { Card } from 'components/Card/Card';
import { Navbar } from 'components/Navbar/Navbar';
export const PageProduct = (): JSX.Element => {
  const [product, setProduct] = useState<ProductType>();
  const { id } = useParams();
 useEffect(() => {
    getProductById(parseInt(id || '0')).then((data) => {
      setProduct(data);
    });
  }, [id]);
  if (product) {
   return (
        <Navbar />
        <Card data={product} detailed />
    );
  return <></>;
};
```

# PageMain/:

## PageMain.styles.tsx:

```
import styled from 'styled-components';
export const PageMainWrapper = styled.div`
  display: flex;
  flex-wrap;
```

`;

#### PageMain.tsx:

```
import React, { useCallback, useEffect, useState } from 'react';
import { useSearchParams } from 'react-router-dom';
import { getProducts } from 'api';
import { ProductType } from 'api/types';
import { Card } from 'components/Card/Card';
import { Navbar } from 'components/Navbar/Navbar';
import { PageMainWrapper } from './PageMain.styles';
export const PageMain = (): JSX.Element => {
  const [products, setProducts] = useState<ProductType[]>();
  const [params, setParams] = useSearchParams();
  useEffect(() => {
    getProducts().then((data) => {
      if (params.get('manf')) {
        const parsedData = data?.filter((elem) => {
          if (params.get('manf')) {
            return (
              elem.id_manufacturer === parseInt(params.get('manf') || '-1')
            );
          } else {
            return true;
        });
        setProducts(parsedData);
      } else {
        if (params.get('productName')) {
          const parsedData = data?.filter((elem) => {
            if (params.get('productName')) {
              return elem.name.includes(params.get('productName') || '');
            } else {
              return true;
          });
          setProducts(parsedData);
        } else {
          setProducts(data);
    });
  }, [params]);
  const onRemoveClick = useCallback((id: number) => {
    setProducts((prev) => prev?.filter((value) => value.pk !== id));
```

#### utils/:

#### sleep.ts

```
export const sleep = async (time?: number) =>
  await new Promise((r) => setTimeout(r, time || 1000));
```

## App.tsx

```
import React from 'react';
import { BrowserRouter, Navigate, Route, Routes } from 'react-router-dom';
import { PageAddCountry } from 'pages/PageAddManufacturer';
import { PageAddHotel } from 'pages/PageAddProduct';
import { PageCountries } from 'pages/PageManufacturers';
import { PageCountry } from 'pages/PageManufacturer';
import { PageEdit } from 'pages/PageEdit';
import { PageEditCountry } from 'pages/PageEditManufacturer';
import { PageMain } from 'pages/PageMain';
import { PageProduct } from 'pages/PageProduct';
import './App.css';
function App() {
 return (
   <BrowserRouter>
      <Routes>
       <Route path="/" element={<Navigate to="/product" />} />
        <Route path="/product" element={<PageMain />} />
        <Route path="/product/add" element={<PageAddHotel />} />
        <Route path="/product/:id/edit" element={<PageEdit />} />
        <Route path="/product/:id" element={<PageProduct />} />
```

#### index.tsx

server/

#### productModel/

models.py

```
from django.db import models

class Manufacturer(models.Model):
    name = models.CharField(max_length=100)
    adress = models.CharField(max_length=999, blank=True, null=True)
    email = models.CharField(max_length=100, blank=True, null=True)

class Meta:
    managed = True
    db_table = 'manufacturer'

class Product(models.Model):
    name = models.CharField(max_length=255, blank=True, null=True)
    price = models.IntegerField(blank=True, null=True)
    quantity = models.IntegerField(blank=True, null=True)
```

```
id_manufacturer = models.ForeignKey(Manufacturer, on_delete=models.CASCADE)
weight = models.FloatField(blank=True, null=True)
description = models.CharField(max_length=255, blank=True, null=True)
imgSrc = models.CharField(max_length=1000, blank=True, null=True)

class Meta:
    managed = True
    db_table = 'product'
```

#### serializers.py

```
from productModel.models import Manufacturer, Product
from rest_framework import serializers

class ManufacturerSerializer(serializers.ModelSerializer):
    class Meta:
        model = Manufacturer
        fields = ("pk", "name", "adress", "email")

class ProductSerializer(serializers.ModelSerializer):
    def create(self, validated_data):
        return Product.objects.create(**validated_data)
    manufacturer = ManufacturerSerializer(source='id_manufacturer', required=False)
    class Meta:
        model = Product
        fields = ["pk", "name", "price", "quantity", "manufacturer",
"id_manufacturer", "weight", "description", "imgSrc"]
```

#### views.py

```
from productModel.models import Manufacturer, Product
from productModel.serializers import ManufacturerSerializer, ProductSerializer
from rest_framework.generics import ListCreateAPIView, ListAPIView,
RetrieveUpdateDestroyAPIView
from rest_framework.response import Response

class ManufacturerView(ListCreateAPIView):
    queryset = Manufacturer.objects.all()
    serializer_class = ManufacturerSerializer

class SingleManufacturerView(RetrieveUpdateDestroyAPIView):
    queryset = Manufacturer.objects.all()
    serializer_class = ManufacturerSerializer

class ProductView(ListAPIView):
    queryset = Product.objects.all()
    serializer_class = ProductSerializer
```

```
def post(self, request):
    manufacturer = request.data
    serializer = ProductSerializer(data=manufacturer)
    if serializer.is_valid(raise_exception=True):
        article_saved = serializer.save()
    return Response({"success": "Product '{}' created
successfully".format(article_saved.name)})

class SingleProductView(RetrieveUpdateDestroyAPIView):
    queryset = Product.objects.all()
    serializer_class = ProductSerializer
```

## products/

urls.py

```
from django.contrib import admin
from django.urls import include, path
from productModel import views as productModel

urlpatterns = [
    path('manufacturer/', productModel.ManufacturerView.as_view()),
    path('manufacturer/<int:pk>', productModel.SingleManufacturerView.as_view()),

    path('product/', productModel.ProductView.as_view()),
    path('product/<int:pk>', productModel.SingleProductView.as_view()),

    path('api-auth/', include('rest_framework.urls', namespace='rest_framework')),
    path('admin/', admin.site.urls)
]
```

settings.py

```
"""
Django settings for hotels project.

Generated by 'django-admin startproject' using Django 3.1.1.

For more information on this file, see
https://docs.djangoproject.com/en/3.1/topics/settings/

For the full list of settings and their values, see
https://docs.djangoproject.com/en/3.1/ref/settings/
"""

from pathlib import Path

# Build paths inside the project like this: BASE_DIR / 'subdir'.
BASE_DIR = Path(__file__).resolve().parent.parent
```

```
# Quick-start development settings - unsuitable for production
# See https://docs.djangoproject.com/en/3.1/howto/deployment/checklist/
# SECURITY WARNING: keep the secret key used in production secret!
SECRET_KEY = 'g5=o&_*8a!sv%x-ac_%@4kgrb75w56_wzrw4+&d4d+ew4i+x+9'
# SECURITY WARNING: don't run with debug turned on in production!
DEBUG = True
ALLOWED_HOSTS = []
# Application definition
INSTALLED_APPS = [
    'django.contrib.admin',
    'django.contrib.auth',
    'django.contrib.contenttypes',
    'django.contrib.sessions',
    'django.contrib.messages',
    'django.contrib.staticfiles',
    'corsheaders',
    'rest_framework',
    'productModel'
MIDDLEWARE = [
    'django.middleware.security.SecurityMiddleware',
    'django.contrib.sessions.middleware.SessionMiddleware',
    'corsheaders.middleware.CorsMiddleware',
    'django.middleware.common.CommonMiddleware',
    'django.middleware.csrf.CsrfViewMiddleware',
    'django.contrib.auth.middleware.AuthenticationMiddleware',
    'django.contrib.messages.middleware.MessageMiddleware',
    'django.middleware.clickjacking.XFrameOptionsMiddleware',
ROOT URLCONF = 'products.urls'
TEMPLATES = [
        'BACKEND': 'django.template.backends.django.DjangoTemplates',
        'DIRS': [],
        'APP_DIRS': True,
        'OPTIONS': {
            'context_processors': [
                'django.template.context_processors.debug',
                'django.template.context processors.request',
```

```
'django.contrib.auth.context_processors.auth',
                'django.contrib.messages.context_processors.messages',
            ],
        },
    },
WSGI_APPLICATION = 'products.wsgi.application'
# Database
# https://docs.djangoproject.com/en/3.1/ref/settings/#databases
DATABASES = {
    'default': {
        'ENGINE': 'django.db.backends.mysql',
        'NAME': 'products',
        'USER': 'django',
        'PASSWORD': 'root',
        'HOST': 'db',
        'PORT': 3306,
        'OPTIONS': {
          'init_command': 'SET NAMES utf8mb4',
          'charset': 'utf8mb4'
        },
    }
# Password validation
# https://docs.djangoproject.com/en/3.1/ref/settings/#auth-password-validators
AUTH_PASSWORD_VALIDATORS = [
        'NAME':
'django.contrib.auth.password_validation.UserAttributeSimilarityValidator',
    },
        'NAME': 'django.contrib.auth.password_validation.MinimumLengthValidator',
    },
        'NAME': 'django.contrib.auth.password_validation.CommonPasswordValidator',
    },
        'NAME': 'django.contrib.auth.password_validation.NumericPasswordValidator',
    },
# Internationalization
# https://docs.djangoproject.com/en/3.1/topics/i18n/
```

```
LANGUAGE_CODE = 'en-us'
TIME_ZONE = 'Europe/Moscow'
USE_I18N = True
USE_L10N = True
USE_TZ = True
UNICODE_JSON = True
# Static files (CSS, JavaScript, Images)
# https://docs.djangoproject.com/en/3.1/howto/static-files/
STATIC_URL = '/static/'
CORS_ALLOW_ALL_ORIGINS = True # If this is used then `CORS_ALLOWED_ORIGINS` will
not have any effect
CORS_ALLOW_CREDENTIALS = True
CORS_ALLOWED_ORIGINS = [
    'http://localhost:3000',
] # If this is used, then not need to use `CORS_ALLOW_ALL_ORIGINS = True`
CORS_ALLOWED_ORIGIN_REGEXES = [
    'http://localhost:3000',
```

# Экранные формы с примерами выполнения программы:









