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Отчет по лабораторной работе №4

«Разработка бота на основе конечного автомата для Telegram с использованием языка Python»

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**Задание**

Разработайте бота для Telegram. Бот должен реализовывать конечный автомат из нескольких состояний.

**Текст программы**

from aiogram import Bot, Dispatcher, executor, types

from aiogram.contrib.fsm\_storage.memory import MemoryStorage

from aiogram.dispatcher import FSMContext

from aiogram.dispatcher.filters.state import StatesGroup, State

from aiogram.types import ReplyKeyboardMarkup, KeyboardButton

class ClientState(StatesGroup):

START\_ORDER = State()

CITY\_SELECTED = State()

RESTAURANT\_SELECTED = State()

DISH\_SELECTED = State()

DRINK\_SELECTED = State()

PROCCESS\_ORDER = State()

bot = Bot(token='6087539215:AAHJo7sGhkCmzfMPWYiXRd7wkuZ0JV1xF9g')

storage = MemoryStorage()

dp = Dispatcher(bot, storage=storage)

@dp.message\_handler(commands=['Go'])

async def start\_proccess(message: types.Message, state: FSMContext) -> None:

msg = '''Привет! 👋🤖 Я бот доставки еды! В каком ты городе?'''

msk\_btn = KeyboardButton('Москва')

spb\_btn = KeyboardButton('Санкт-Петербург')

voronezh\_btn = KeyboardButton('Воронеж')

lipetsk\_btn = KeyboardButton('Липецк')

markup = ReplyKeyboardMarkup(resize\_keyboard=True)

markup.row(msk\_btn, spb\_btn)

markup.row(voronezh\_btn, lipetsk\_btn)

await message.answer(msg, reply\_markup=markup)

await state.set\_state(ClientState.START\_ORDER)

@dp.message\_handler(state=ClientState.START\_ORDER)

async def choose\_restoraunts\_process(message: types.Message,

state: FSMContext):

user\_msg = message.text

await state.update\_data(CITY=user\_msg)

dragon\_rest\_btn = KeyboardButton('Китайский дракон')

pylounge\_rest\_btn = KeyboardButton('PyLounge')

markup = ReplyKeyboardMarkup(resize\_keyboard=True)

markup.row(dragon\_rest\_btn, pylounge\_rest\_btn)

await message.answer('Выберите заведение', reply\_markup=markup)

await state.set\_state(ClientState.CITY\_SELECTED)

@dp.message\_handler(state=ClientState.CITY\_SELECTED)

async def dish\_process(message: types.Message, state: FSMContext):

user\_msg = message.text

await state.update\_data(RESTAURANT=user\_msg)

soup\_menu\_btn = KeyboardButton('Суп')

nosoup\_menu\_btn = KeyboardButton('Не суп')

markup = ReplyKeyboardMarkup(resize\_keyboard=True)

markup.row(soup\_menu\_btn, nosoup\_menu\_btn)

await message.answer('Выберите блюдо', reply\_markup=markup)

await state.set\_state(ClientState.RESTAURANT\_SELECTED)

@dp.message\_handler(state=ClientState.RESTAURANT\_SELECTED)

async def drink\_process(message: types.Message, state: FSMContext):

user\_msg = message.text

await state.update\_data(DISH=user\_msg)

cola\_menu\_btn = KeyboardButton('Кола')

more\_cool\_cola\_menu\_btn = KeyboardButton('РашнКола')

markup = ReplyKeyboardMarkup(resize\_keyboard=True)

markup.row(cola\_menu\_btn, more\_cool\_cola\_menu\_btn)

await message.answer('Выберите напиток', reply\_markup=markup)

await state.set\_state(ClientState.DISH\_SELECTED)

@dp.message\_handler(state=ClientState.DISH\_SELECTED)

async def order\_process(message: types.Message, state: FSMContext):

user\_msg = message.text

await state.update\_data(DRINK=user\_msg)

proccess\_btn = KeyboardButton('Оформить заказ')

cancel\_btn = KeyboardButton('Отмена')

markup = ReplyKeyboardMarkup(resize\_keyboard=True)

markup.row(proccess\_btn, cancel\_btn)

await message.answer('Мы почти закончили', reply\_markup=markup)

await state.set\_state(ClientState.DRINK\_SELECTED)

@dp.message\_handler(state=ClientState.DRINK\_SELECTED)

async def finish\_process(message: types.Message, state: FSMContext):

user\_msg = message.text

if user\_msg == 'Оформить заказ':

user\_state\_data = await state.get\_data()

city = user\_state\_data['CITY']

rest = user\_state\_data['RESTAURANT']

dish = user\_state\_data['DISH']

drink = user\_state\_data['DRINK']

msg = f'''Ваш заказ: {dish} {drink} из {rest} ({city}) ОФОРМЛЕН!!!'''

await message.answer(msg)

else:

await message.answer('Пока(')

await state.finish()

if \_\_name\_\_ == '\_\_main\_\_':

executor.start\_polling(dp, skip\_updates=True)

**Пример выполнения программы**

