

Team ID	PNT2022TMID03711
Project Name	Smart solution for Railways.

PAYMENT

```
from django.contrib.auth.base_user import AbstractBaseUser
```

```
from django.db import models
```

```
class User(AbstractBaseUser):
```

```
    """
```

```
    User model.
```

```
    """
```

```
    USERNAME_FIELD = "email"
```

```
    REQUIRED_FIELDS = ["first_name", "last_name"]
```

```
    email = models.EmailField(
```

```
        verbose_name="E-mail",
```

```
        unique=True
```

```
    )
```

```
    first_name = models.CharField(
```

```
        verbose_name="First name",
```

```
        max_length=30
```

```
    )
```

```
    last_name = models.CharField(
```

```
        verbose_name="Last name",
```

```
        max_length=40
    )
```

```
city = models.CharField(
    verbose_name="City",
    max_length=40
)
```

```
stripe_id = models.CharField(
    verbose_name="Stripe ID",
    unique=True,
    max_length=50,
    blank=True,
    null=True
)
```

```
objects = UserManager()
```

```
@property
def get_full_name(self):
    return f"{self.first_name} {self.last_name}"
```

```
class Meta:
    verbose_name = "User"
    verbose_name_plural = "Users"
```

```
class Profile(models.Model):
    """
    User's profile.
```

```
"""
```

```
phone_number = models.CharField(  
    verbose_name="Phone number",  
    max_length=15  
)
```

```
date_of_birth = models.DateField(  
    verbose_name="Date of birth"  
)
```

```
postal_code = models.CharField(  
    verbose_name="Postal code",  
    max_length=10,  
    blank=True  
)
```

```
address = models.CharField(  
    verbose_name="Address",  
    max_length=255,  
    blank=True  
)
```

```
class Meta:  
    abstract = True
```

```
class UserProfile(Profile):
```

```
"""
```

```
User's profile model.
```

```
"""
```

```
user = models.OneToOneField(  
    to=User, on_delete=models.CASCADE, related_name="profile",  
)
```

```
group = models.CharField(  
    verbose_name="Group type",  
    choices=GroupTypeChoices.choices(),  
    max_length=20,  
    default=GroupTypeChoices.EMPLOYEE.name,  
)
```

```
def __str__(self):  
    return self.user.email
```

```
class Meta:
```

```
# user 1 - employer
```

```
user1, _ = User.objects.get_or_create(  
    email="foo@bar.com",  
    first_name="Employer",  
    last_name="Testowy",  
    city="Białystok",  
)
```

```
user1.set_unusable_password()
```

```
group_name = "employer"
```

```
_profile1, _ = UserProfile.objects.get_or_create(
    user=user1,
    date_of_birth=datetime.now() - timedelta(days=6600),
    group=GroupTypeChoices(group_name).name,
    address="Myśliwska 14",
    postal_code="15-569",
    phone_number="+48100200300",
)
```

user2 - employee

```
user2, _ = User.objects.get_or_create()
    email="bar@foo.com",
    first_name="Employee",
    last_name="Testowy",
    city="Białystok",
)
```

```
user2.set_unusable_password()
```

```
group_name = "employee"
```

```
_profile2, _ = UserProfile.objects.get_or_create()
    user=user2,
    date_of_birth=datetime.now() - timedelta(days=7600),
    group=GroupTypeChoices(group_name).name,
    address="Myśliwska 14",
    postal_code="15-569",
    phone_number="+48200300400",
)
```

```
response_customer = stripe.Customer.create()
    email=user.email,
    description=f"EMPLOYER - {user.get_full_name}",
    name=user.get_full_name,
    phone=user.profile.phone_number,
)
```

```
user1.stripe_id = response_customer.stripe_id
user1.save()
```

```
mcc_code, url = "1520", "https://www.softserveinc.com/"
```

```
response_ca = stripe.Account.create()
    type="custom",
    country="PL",
    email=user2.email,
    default_currency="pln",
    business_type="individual",
    settings={"payouts": {"schedule": {"interval": "manual", }}},
    requested_capabilities=["card_payments", "transfers", ],
    business_profile={"mcc": mcc_code, "url": url},
    individual={
        "first_name": user2.first_name,
        "last_name": user2.last_name,
        "email": user2.email,
        "dob": {
            "day": user2.profile.date_of_birth.day,
            "month": user2.profile.date_of_birth.month,
            "year": user2.profile.date_of_birth.year,
        },
    },
```

```
        "phone": user2.profile.phone_number,
        "address": {
            "city": user2.city,
            "postal_code": user2.profile.postal_code,
            "country": "PL",
            "line1": user2.profile.address,
        },
    },
)
```

```
user2.stripe_id = response_ca.stripe_id
user2.save()
```

```
tos_acceptance = {"date": int(time.time()), "ip": user_ip},
```

```
stripe.Account.modify(user2.stripe_id, tos_acceptance=tos_acceptance)
```

```
passport_front = stripe.File.create(
    purpose="identity_document",
    file=_file, # ContentFile object
    stripe_account=user2.stripe_id,
)
```

```
individual = {
    "verification": {
        "document": {"front": passport_front.get("id")},
        "additional_document": {"front": passport_front.get("id")},
    }
}
```

```
stripe.Account.modify(user2.stripe_id, individual=individual)
```

```
new_card_source = stripe.Customer.create_source(user1.stripe_id, source=token)
```

```
stripe.SetupIntent.create(  
    payment_method_types=["card"],  
    customer=user1.stripe_id,  
    description="some description",  
    payment_method=new_card_source.id,  
)
```

```
payment_method = stripe.Customer.retrieve(user1.stripe_id).default_source
```

```
payment_intent = stripe.PaymentIntent.create(  
    amount=amount,  
    currency="pln",  
    payment_method_types=["card"],  
    capture_method="manual",  
    customer=user1.stripe_id, # customer  
    payment_method=payment_method,  
    application_fee_amount=application_fee_amount,  
    transfer_data={"destination": user2.stripe_id}, # connect account  
    description=description,  
    metadata=metadata,  
)
```

```
payment_intent_confirm = stripe.PaymentIntent.confirm(  
    payment_intent.stripe_id, payment_method=payment_method  
)
```



```
stripe.PaymentIntent.capture(  
    payment_intent.id, amount_to_capture=amount  
)  
stripe.Balance.retrieve(stripe_account=user2.stripe_id)
```

```
stripe.Charge.create(  
    amount=amount,  
    currency="pln",  
    source=user2.stripe_id,  
    description=description  
)
```

```
stripe.PaymentIntent.cancel(payment_intent.id)
```

```
unique_together = ("user", "group")
```